

# The Catholic Educational Review

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UTOPIA REDIVIVA

A LIBERAL COLLEGE COURSE

Some few years ago a meeting of private colleges was held in a circumscribed district in these United States. The subject for discussion was the relation of professional courses to the general Arts and Science curriculum of the B.A. type. More specifically the question was how the traditional college course is being or should be affected by the fact that many college students are preparing for professions requiring less than four years of "pre-" work. Apart from some few remarks whose relevancy was not too apparent, the gist of opinions was that in the preceding years the attendance at the colleges had increased and that the colleges were therefore holding their own, wherefore everything was well with them! In the matter of statistics, the question of the proportion of increase in these colleges to the total increase of attendance in the whole country was not even hinted at. It reminded the writer of the unforgettable scene depicted in the history books when he was in the grades. It was the fateful night in some colonial town during the Revolution, and the serenely unsuspecting town-crier more cheerfully than ever, in the imagination of the youthful minds, sang out his "Two o'clock, and all's well!" If the tory pedagogs of the town heard it, how sweet was their complacency as they turned over on their sides and dozed off on the thought that they were holding their own and therefore had no cause for worry. Thereupon the disturbance came, and rude indeed was the awakening!

Two types of mind are of interest to us in this connection: the self-glorying one, explicitly or implicitly patting itself on the back, and unconscious of the world about; and the more modest but also more masterly one that keeps its ear to the ground of

human life, and tries to read signs. Accordingly there are for these types quite different ways of dealing with the problems of life: On the one hand a very successful attempt to find out that there is no need of worry, with a consequent encasement of the mind in a shell of self-complacency, and a calm awaiting of the glory of the future; on the other hand an attempt, not so successful perhaps, to read the trend of events and to throw out positive suggestions which aim at once to respond to contemporary environment and to influence it.

#### I. THE PRESENT TREND

The present age is acknowledgedly one of transition. And in all transitions there is an unsettled condition of things human, of both the external as well as the internal, a condition that in spots amounts to chaos. Writers like to talk of the smugness of the Victorian age, when many notions and ideals of a remoter past were still accepted with unquestioned faith. Evolution put an end to that smugness at one fell swoop. It was an essential doctrine of evolution that the past was, from the viewpoint of the present, all wrong. Hence the traditional standards of the past had to go, and to a great extent did go in the learned world which alone concerns us here. We today are reaping the fruits. "Indeed our own age is passing through a crisis not unlike that of the thirteenth century. Clearly the commonplace aspirations of the nineteenth century have lost their hold upon society; and no allegiance to them can be extracted from our best thinkers. People still go to church and chapel, and our social reformers are still concerned with better drainage and the distribution of wealth; but there is no real agreement on the fundamental moral issue—what is it all about?" (*The International Journal of Ethics*, xxxiii [1923], p. 223.)

The superior attitude assumed towards the innocent past found a large measure of ground in the present, in the marvelous achievements of the natural sciences of the past two generations—achievements both in the theoretical field and the practical that are truly epoch-making, and that *did* correct many past notions and ways of living. The characteristic of our age, wrote Sir Oliver Lodge just over a decade ago, is "rapid progress, combined with fundamental skepticism." (*Science*, n. s. xxxviii [1913], p. 380.) But the statement needs correction. There was rapid progress, and there was fundamental skepticism

in regard to the past—not in regard to the present and the future. On account of the final arrival of the era of progress men's hopes ran high. The present was at the pinnacle of human achievements, and the future was to be the long-expected millennium, now finally within sight. Naturally the scientific method that had brought us to the present stage of achievements became a very philosophy of life. On its basis were the gigantic industries organized, and very properly so. The home conditions became scientific to an extent never before dreamt of. Government became scientific; and education has been reconstructed to an unheard-of extent. It is now thoroughly organized as never before. A detailed mechanism of education has been set up; with all its parts perfect with the hitherto unattained perfection of an intense specialization.

While it is this latter aspect of modern life that concerns us we cannot properly come to a discussion of it without completing the above picture of this age of transition. If the supreme smugness of the past century was superseded by a supreme smugness in accepting the present, not merely for what it was worth, but for being all the worth there was, this smugness, too, has disappeared—and therein consists the transitional aspect of our own age. The facilities with which organized and industrialized science surrounded our present life are today not without their critics.

"Absence of thought is becoming, if it has not become, the crowning glory of the civilization of which our pride is to boast. It is a curious and melancholy fact that the result of the thinking of the small minority who continue to think is to help the large majority to do without thinking." "Most work nowadays is kind enough to dispense with thought, and the habit of not thinking encouraged in working hours is not easily broken in playtime." ("Why the World Grins," *The North American Review*, Vol. 218 [1923], p. 543.)

"Science has advanced further in the last hundred years than in all the preceding centuries, solely, I am sometimes inclined to believe, that the mental inertia of the educated may be complete. The most amazing inventions are putting the final touches to the general demoralization. For what did Daguerre and Muybridge toil save to send the mentally indolent generation of today to the Nirvana of the movie? For what did Franklin fly his kite and Morse forsake his art save that the radio might do away with the least little need of thought the movies have spared?" (*Ibid.*, p. 544.)

"We have bottled and tinned and canned not merely our

foods but in a subtle and sensitive machinery our labor and to a startling extent our very culture, our music, our drama. These are all provided for us vicariously. Small wonder that our human spirit between hope and fear, real freedom and a license as dangerous as at times it has seemed unbalanced, is reacting aggressively to the challenge, bent on adventures in humanism." ("The Time of the Day," *The Scientific Monthly*, xvii [1923], p. 571.)

That this supposed absence of general thought not only creates an internal condition, but affects the external social life as well is stated with equal emphasis.

"In so far as politics has leaned upon sociology it has become weak and incoherent, forgetting logic, ethics, and aesthetics alike. So far as it has relied upon progress and evolution as explanatory principles it has abandoned critical thought. Its natural ally, psychology, has suffered from the same defects and added an overemphasis of the abnormal or pathological category, while cultural and comparative anthropology is too much neglected. Thus it happens with the enormous extension of higher education and of research that the old lines made fairly clear by the past experiences of the *homo sapiens* are fading, while we have already achieved the distinction of being the most lawless and criminal of all the nations of the earth, outstripping our nearest competitor in homicide by 7.2 to 3.6 per 100,000." (*The Philosophical Review*, xxxiv [1925], p. 499.)

The rude awakening of the present to its own condition has naturally led to a different attitude towards the past, which is no longer an abomination to be despised with the whole heart. The reawakened interest in the Middle Ages (also in educational circles?) need not be more than mentioned. It has in some circles become almost a passion. The better appreciation of the past becomes quite significant when it shows itself in the field of anthropology, which has been one of the strongest depositories of an unquestioned acceptance of materialistic evolution as a constant progress from the good to the better. May it be well for us that it is precisely the "American School of Historical Ethnology" of whom it is true that "all modern ethnology, with disappearingly few exceptions, builds upon the ruins of the classical evolutionary doctrine. Its tenets have been shattered to splinters. No anthropologist today believes in an orderly and fixed procession of cultural development. Not alone culture as a unit but each of its constituent elements, such as social organi-



zation, art, religion, is now known to change in ways that are diverse and complex." (*The American Journal of Sociology*, xxxi [1925], p. 19.)

The transitional character of our present age in part represents a conflict of an immediate past (19th-20th century) with a remoter past (Middle Ages), a remoter past that was the immediate past when the modern era of history (Renaissance, Reformation, etc.) was ushered in. Our transition is a reaction to the philosophy of life that was emphasized in our immediate past, and as a positive adjustment means the reacceptance of some of the viewpoints of the remoter past. History, however, is never mere repetition, and we at present are the legitimate inheritors of both past eras. We shall therefore be true to history only if there is no one-sided rejection of either past, but an adjustment of either one in the light of the other. Our transition must be a correction of both extreme attitudes. It is with this restriction that we may describe the transition as one going from the mechanical and material to the more spontaneous and spiritual, from the merely utilitarian to the utilitarian and cultural; from the superficial view of life to a more profound attitude towards "eternal verities"; from the selfishly individual to the socially individual—all of which implies quite a revolution also in our external life, readjustment also in human relations.

Is this characterization merely a dream, or is it real? Reactions breed extremes, and the very fact that prophets of today are overemphasizing the spiritual, the spontaneous, the social, are indications that the transition is in progress. In the fact of this transition, is there anything to be done regarding the good old B.A. course? Or can we rest secure in the belief that during a most turbulent time of utilitarian stress it has held its own, and with the tide of events is bound to come into its own more prominently than ever? Education embodies a certain amount of matter and employs a certain method. Strictly these two aspects cannot be separated. For the sake of definiteness, however, we can consider them separately without forgetting that they cohere intimately in real life.

## II. THE MATTER OF EDUCATION

Men speak of the tide of events as typified by the swing of the pendulum. If you are out of the swing, just remain where you

are, and the day will come when you will be again abreast of the times. It will be your turn to laugh. But on the same principle your laugh cannot be of long duration if the analogy is a correct one—which it is not. The pendulum of time does swing, granted. But we shall also swing in time, if that be our ideal, only by swinging synchronously with the pendulum. There are indications that the pendulum is swinging back to a better appreciation, nay to an earnestly felt need, of the cultural over against the *merely* utilitarian, therefore of the cultural *alongside* the utilitarian, in our education. In fact, some of the professional schools themselves have given a great impetus to this return of the cultural in education. Not only are some schools of law and especially of medicine open only to students that have received the bachelor's degree, but even in professional schools where that is not a requirement the number of candidates presenting themselves for admission are showing an increasing number of degreed bachelors in their ranks. If this savors of the statistical method, we can refer instead to the movement of the Classical League, the renewed impetus given to history with all that the term can embrace, and the emphasis on the human side of life, the social, industrial, religious aspects of public life in history.

But can the return to a cultural education mean the return to the classical humanism of a bygone epoch, the discarding, for instance, of the natural sciences and the cognate higher mathematics? Both of these were but developing themselves during the flourishing of the humanism of the Renaissance, which was veritably a revival of the ancient classics. The sciences were as such not part and parcel of the humanistic education of this cultural epoch *par excellence*.<sup>1</sup> Are they therefore to be con-

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<sup>1</sup> According to definition humanism in general holds "the conviction that spiritual and ideal values are of supreme rank in the make-up of reality, and that these values are most adequately expressed in the great classic achievements of humanity in literature and art—especially literature." (*Cyclopedia of Education*, "Humanism and Naturalism.") The scientific discoveries contemporary with the rise of the classical humanism needed time to develop. During the climax of the latter they were nothing but isolated, disintegrated facts, and played no part in the prevalent concept of culture. May it not be due to this accident of history that the traditional conflict arose, in the first instance, between two philosophies of life, exclusivism always breeding antagonism?

sidered as merely utilitarian and not cultural in our own day, especially since they form the backbone of the utilitarian or professional courses, and are the subjects that crowded the classical languages out of the position of prominence formerly occupied? That depends on our definition of culture, and on whether we are living in the past or in the present. Former President Eliot defined culture as follows: "The worthy fruit of academic culture is an open mind, trained to careful thinking, instructed in the methods of philosophic investigation, acquainted in a general way with the accumulated thought of past generations, and penetrated with humility." (Quoted in Horne, *The Philosophy of Education*, p. 244.) The "open mind" alone is sufficient to call for a share of science in a general education, not to speak of "the accumulated thought of the past generation" or training "to careful thinking," even if it could be granted that an understanding of life today were possible without knowing the fundamentals of natural science. Science today has become such an intimate element of daily life, that without it no well-balanced cultural curriculum can be constructed. And this would be true even if scientific progress from this day forward were to cease. It is surely not in the nature of science to be anti-cultural, if by the latter term is meant the merely mechanical, material, or utilitarian. Above all should the man who still believes in the Scriptures emphatically insist on the cultural nature of true science, whether viewed from its disciplinary advantages, or from the standpoint that science today is necessary for understanding the past and the present life and the thoughts of our fellowmen (is there any greater duty than this for culture?), or merely because of the fact that it reveals more and more the marvels of this universe. Regarding the relation of science and culture the *Cyclopedia of Education* says ("Culture and Culture Values"):

"The preponderance of the literary factor in the education with which the typical humanist is acquainted blinds him to the fundamental importance of knowledge of nature as a necessary condition of reaching both all-around individual development and an equable social improvement. From the broader point of view, culture may be defined as the habit of mind which perceives and estimates all matters with reference to their bearing on social values and aims."

But if science has such cultural value, why has this not been

practically accepted in education; why has the utilitarian point of view been so persistently proclaimed in our college courses as the be-all of science? The fault, some might say, lies with the scientists, while others might add by way of explanation that the scientists are but the victims of their sciences in that case. But may the reason not, apart from the enormous practical utility of science, be this, that the scientists are as human as the rest of us and are as much as we the children of their generation? The Church has been accused of intolerance because various of her churchmen were intolerant in an age of universal intolerance. We have just had, and still greatly have, an age of materialism and simon-pure utilitarianism. We all have been affected by this atmosphere, and it may be for this reason that the cultural possibilities of the sciences were not better realized. Is not the very same true of the classics? Did we in our generation really turn our backs on the cultural values of the classics as such, or did we see less good in the classics also, in part at least, for the reason that in an age of depreciation of the cultural for itself that aspect of the classics fell into desuetude also among most of the teachers of the classics? No one can be more emphatic than many protagonists of the contemporary classical movement in their denunciation of the way in which the classics have, not infrequently at all, been taught in the classroom. Similarly the best pleas for the cultural value of the sciences, with implicit and explicit denunciations of the neglect of this aspect of them, has come from the ranks of the scientists. Thus Professor Findley said recently:

"The real claim of science to fuller appreciation by the community, the claim which we should seek to urge in all our publicity activity and propaganda, yes, and in all our schemes of education in school or university is the cultural, the spiritual and the moral importance of science. . . . The aim of science is the pursuit of truth and from the roots of truth springs beauty; . . . The phenomena of nature do not lose in beauty as we gain an understanding of them; they become not less but more wonderful, the more fully we learn their meaning." ("The Appeal of Science to the Community," *Science*, lxii [1925], pp. 361, 362.)

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(To be continued)



## PHONETICS, THEIR ORIGIN AND FUNCTION

### A BRIEF HISTORY OF PHONETICS

Phonetics is defined as "the science of speech sounds in actual use." The term has come to be used synonymously with *phonics*. A phonogram is "a character or symbol used to represent a word, a syllable, or a single speech sound" (25).<sup>1</sup>

Before discussing the present-day status of phonetics, we shall give a brief sketch of its career as an educational factor. Historical evidence shows that, during Greek and Roman times, a combination of the alphabet, syllable, and word methods was used in the teaching of reading. "From the earliest period of modern development, however, until within quite recent times, the alphabet or spelling method has been almost universally employed" (21:63). The ordeal of mastering the alphabet was a trying one, and easier methods of teaching to read were sought by educators.

In Europe, the alphabet method had modifications on the side of phonetics as early as 1534, when Valentin Ickelsamer, the father of German grammar, used the "device of placing the picture of an animal, its printed name, and the letter whose sound was most like the animal's voice or cry, in parallel columns" (4:26-27). In 1790, Dr. Thornton, head of the Patent Office in Washington, issued a pamphlet entitled *Cadmus, or a Treatise on Written Language*. In this treatise (24) he proposed that letters be named as they sound, and, as there are more sounds than letters, he introduced a sufficient number of new characters to supply the deficiency, thus making a phonetic system such as we have seen much of in recent years. The phonetic method, however, did not gain a foothold in American schools until many years later.

Worcester's Primer published in 1828 is the first advocate of the word method on record; next came the Bumstead Primary Readers in 1840-1843; but the word method made little headway until the publication of the Normal Readers by J. Russell Webb about 1866 (21:76-79). Though the word method was an im-

<sup>1</sup> NOTE: Numbers in parenthesis refer to the corresponding number in the bibliography at the end of the article.

provement over the alphabet method in teaching beginning reading, it offered no means of independent attack upon new and difficult words; therefore, many teachers turned to what was called the phonic method as a remedy. By this method, words were spelled by sounds instead of by letters, and forty-four instead of twenty-six characters were used; this method was impractical, and was short-lived wherever introduced.

In 1864, Dr. Edwin Leigh, following the plan worked out by Dr. Thornton in 1790, invented the *Pronouncing Orthography*. By this device, each letter had as many different forms as it had sounds, and silent letters were printed in hair lines. "This system met with great success, but only for a short time. The *pronouncing print* was hard on the eyes, requiring an unnaturally close inspection of each letter in the beginning; besides, it made trouble for the printer, distracted from attention to the thought in reading, and caused confusion in the attempt to use two alphabets" (13:261).

From 1890 to 1909 there appeared many modifications of the phonetic method. In some series, it was the only method of teaching reading advocated; in others, it was combined with the word and sentence methods. One purely phonetic series appearing during the period was the *Synthetic Method of Reading and Spelling*, by Rebecca S. Pollard. In the preface (20:3-4) to the manual for this series we read, "Instead of teaching the word as a whole and afterwards subjecting it to phonic analysis, is it not infinitely better to take the sounds of the letters for our starting point, and with these sounds lay a foundation, firm and broad, upon which we can build whole families of words for instant recognition?" According to this method, which is wholly synthetic, the children are required to build words out of sounds previously learned, indicating all the sounds by diacritical marks; they mark all the words in their spelling and reading lessons, until facility in recognizing phonic values is acquired. In his criticism of this method, Dr. Huey says that "to burden the young pupil with the cumbersome technique of such a method and to so fill his mind with the dead product of adult analysis is a crime against childhood which cannot long be suffered. Even in perfectly attaining its ideal it has not taught the child to read, and is most likely to permanently unfit him for intelligent, natural reading" (13:284). The *Rational Method* by Ward, the

*Comprehensive Method* by Gordon, and the *Beacon Method* by Fassett, are among the latter phonetic methods of reading. Of methods such as these, Germane and Germane say, "All the special phonetic methods greatly overemphasize the value of that training, give it too large a place in the early work in reading, and pursue it long after its essential values have been obtained" (8:103).

Since 1909, authors of readers have realized with Huey that "attention to letters, elementary sounds, words, and word meanings cultivated by the alphabet, phonic, and word methods, must be displaced by attention to sentence wholes and sentence meanings," and with Reeder, that "the richer the thought, and the deeper the interest, the fewer the number of associations necessary to fix the words and sentence forms." With these realizations have come the provision of worth-while childlore for the first reading lessons. At present, story material, nursery rhymes, and interesting thought units based upon children's familiar experiences, are used in teaching beginning reading; the main emphasis is placed upon reading as a thought-getting process, and phonetics has dwindled from a method of teaching reading to a mechanical device for training in word recognition.

#### WHY TEACH PHONETICS?

The real value of phonetics in reading instruction has not been determined by scientific experiment. Various investigations, as well as the everyday experiences of teachers, have proved, however, that children may be taught to read either with or without the aid of formal phonetic training (6:286-287; 2).

As all education should contribute to the formation of desirable permanent habits, no stone that will be cast aside later, should be mortared into the structure of reading habit. Hence the question arises whether or not a knowledge of phonetics is of value to the mature reader.

An informal examination of a mature reader's procedure when he meets an unfamiliar word in silent reading, reveals that he generally skips over the word and reads to the end of the sentence in order to get the sentence-thought, and, at the same time, to derive the meaning of the word from its context. Then he returns to the word and endeavors to determine its correct pronunciation; to do this, he usually divides the word into syl-

lables, and attacks each syllable in order. This procedure requires at least a practical, even though an unconscious, knowledge of phonetics. Before incorporating the word into his vocabulary, the thoughtful reader refers to a standard dictionary in order to verify both the pronunciation and the meaning of the word. The next time he meets the word he recognizes it as a whole automatically; he no longer directs his attention to the form of the word, but to the idea which it conveys.

The mature oral reader follows much the same procedure as the silent reader, although he endeavors to pronounce the unfamiliar word when he meets it, by inspection and quickly; here again, a practical knowledge of phonetics is of assistance. To give pleasure to his audience, the oral reader must pronounce correctly, enunciate distinctly, and read with intelligent expression. The first two habits can, of course, be acquired by imitation, but the reader will be more independent if he knows the elementary sounds in the English language, the phonograms that represent them, and the principal phonetic rules of pronunciation.

An enumeration of some of the worth-while current opinions on the subject, will give an idea of the value set upon phonetics by educators at present. Parlin, in the introduction to his book on *English Phonetics* states that "no person can read English independently until he learns either consciously or unconsciously the phonetic values of the letters of the English language" (18:1). It is the opinion of Germane and Germane that "phonics gives the pupil a method of attacking new words, and tends to make him an independent reader very early in his school life" (8:226). Judd, in his discussion of the progress of children in reading through the grades, says that "analysis of words cannot be omitted from any complete training of pupils. A child can read without analysis so long as his vocabulary is small, and the words are short, but, sooner or later, he must make analyses, and then he will be greatly helped if he has been trained in systematic methods" (15:141). William S. Gray (9:32) offers the following suggestion as a principle of method in reading: "Independence in the recognition of words should be developed in the early grades by means of word study and phonetic analysis." Osburn (16) considers phonics "a necessity in the teaching of reading because of the immense saving of time which it involves."



Currier and Duguid (6) report that, in an experiment conducted in the second grade of the public schools of Tilton, New Hampshire, to aid in determining the value of phonetic drills in teaching reading, it was observed that "foreign children, children with impediments of speech, and children who had previously formed bad habits of pronunciation, were much helped by phonetic drills."

The majority of the educators who advocate phonetic training strongly protest against overemphasis on that type of training.

Wheat (26:96) holds that "training in phonics and word analysis does result in recognition, but in recognition of an inferior sort, which, if overemphasized, results in the development of habits of inspecting analytically all words and phrases met in reading." In a discussion of the evidences of individual differences in reading, Judd states that "there are methods of excessive phonic analysis and methods of oral reading in the upper grades even today which hold back pupils who would otherwise make great progress" (15:158). In a summary of some of the undesirable practices in phonetic training Frances Jenkins says that *overemphasis* on phonic analysis and mere word recognition encourages the development of *word-callers*. This prevents the forming of correct attitudes of thoughtful appreciation." (14:89). The criticism of Germane and Germane is that "phonic drill centers the child's attention on single letters or small groups of letters. This prevents the development of the wide eye-span necessary to effective silent reading. Phonics also divert the child's attention from the meaning of the story to the mechanics of reading, as is shown when he stops short in his reading of a selection to *sound* some unfamiliar word." (8:226). According to Theisin the "possession of a system (of phonic analysis) provides a pupil with a means of independent recognition of difficult words. Whether the acquisition of this ability is pure gain, is another matter" (22:11). In 1917 Currier conducted an experiment in the third grade to aid in determining the value of phonetic drills in teaching reading. One of the conclusions recorded as a result of this experiment was that "a certain number of pupils evidently possess a natural *phonic sense* and employ it, and unconsciously depend on it from the very beginning of their reading. To these pupils phonic drills as a part of the daily routine prove very tiresome, wholly without value" (5:449).

Being influenced by the consensus of authoritative opinion, in the absence of scientific evidence, the conclusion to be drawn from a study of the above judgments is that phonetic analysis is one type of training that builds up desirable habits of word recognition; but, as some children have a natural phonetic sense and use it, whereas others require considerable training, the inference is that phonetic instruction should be provided, but according to the needs of individual pupils.

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## THE CESSATION OF INTELLECTUAL DEVELOPMENT

The refinements that have been effected in the technique of experimental investigations in educational psychology have accelerated research in many phases of this science. Among the more important questions subjected to investigation are those associated with the general problem of intellectual development. Despite the volume of results secured many of these questions remain for final settlement. The information yielded by recent studies indicates the falsity of many theories that have hitherto encumbered educational science, the probability of others, and directions which future research may profitably follow. Further improvements in methods of research guarantee the rich promise of educational psychology for the future. Out of a great deal of obscurity that has enveloped intellectual development will surely emerge a definite knowledge of the nature of the process and the conditions which surround it.

Many problems are intimately connected under the general topic of intellectual development. The rate of this development has been studied in considerable detail. This problem as well as the others demands the application of quantitative measurements under certain conditions. The invention and improvement of such methods have been achieved but comparatively recently and the problem of developmental rate is yielding to solution. The effects of adolescence on intellectual development, the relation of development to individual differences, the cessation of intellectual development and many other questions are being investigated by methods that were not available for the older psychology. A partial result of the absence of such quantitative measurements has been educational theorizing whose effects are difficult to dislodge from their tenacious grasp on educational theory and practice. Many of these concepts have assumed the guise of dogmas. Not only has there been considerable confusion with regard to the facts but the terms themselves have been employed in such a variety of meanings that their real significance is lost amid a deluge of verbiage. Qualitative and quantitative, growth and development, mental and intellectual, have all been used more or less indiscriminately. Facility in understanding the precise problems can be acquired



only when the terms are accurately defined and restricted in their applications.

Many studies have appeared under the caption of "mental development." The term *mental*, however, is usually understood to pertain to all manifestations of mind, intellectual, affective, and appetitive. The experimental studies have dealt largely with increases in the intellectual capacities and to designate such studies by the broader term is at least confusing if not positively misleading. It is highly advantageous, therefore, to restrict the terms to their proper meanings. Intellectual development refers to the development of the cognitive capacities while mental development may be employed in the wider sense to include the unfolding of all aspects of consciousness, including the cognitive abilities, the affective states, and the appetitive drives. The majority of experimental investigations have been concerned with the intellectual phase of mental development or the quantitative increase in intellectual capacities.

The terms growth and development have been even more abused. It will save monotonous digressions and explanations if these terms are employed in their exact significance throughout the present discussion. Growth ordinarily refers to increase in knowledge while development designates increase in the capacities by which knowledge is acquired. These capacities are the native abilities and not the products of experience. The custom of using these two terms interchangeably has become so widespread that the older distinctions have been overlooked even though knowledge and ability are distinguished. In some instances complex and elaborate distinctions have been drawn between them. An analysis of such distinctions usually resolves them into the significance with which they have been employed in this paper. Intellectual development, therefore, means increasing cognitive capacities or native abilities.

Qualitative and quantitative have been similarly employed in a variety of meanings that are not always clear. These terms have been borrowed from chemistry and employed in psychology with meanings analogous to those they possessed in the natural sciences. Quantitative ordinarily signifies amount while qualitative means the nature or structure of what is described. Quantitative changes in mental traits would accordingly be increases or decreases in the amounts or strengths of those traits.

Qualitative variations would pertain to changes in the constituents of the mind. It is readily perceived that these terms can be applied only by analogy with reference to the mind. The child at twelve is able to learn more readily than at six by virtue of his increased capacity. Such increases may be termed quantitative while recognizing the restrictions under which that term is used. If qualitative is applied to the mind it must refer to such changes in mental constitution as produce new traits or cause old traits to disappear. It is probable that there are no qualitative changes in intellectual capacities for the child does not acquire new intellectual abilities but perfects and increases those which he already possesses. Inasmuch as quantitative increase implies dimensions that can be attributed to the mind only analogically, it is apparent that quantitative development simply means more of a trait than was previously possessed as judged by the performance of the individual. In the following discussion all these terms will be employed only in their restricted meanings. It is undoubtedly true that much confusion has been caused through the use of these terms in a variety of meanings.

It will prove useful to review within a comparatively brief space the present status of our information regarding the age at which intellectual development reaches maturity. While growth or increase in information continues throughout life, quantitative increase in native abilities ceases comparatively early. The age at which this cessation occurs has been the subject of numerous investigations and prolonged controversy. The methods applied to the solution of the problem have differed substantially and these variations have contributed much of the ambiguity that characterizes the results. It is necessary, therefore, to review briefly the major methods employed.<sup>1</sup>

The first method historically was an indirect one. It consisted in investigations of brain growth and development and the application of the results secured to intellectual development. Probably more mistaken conceptions regarding intellectual development have had their source in this method than in

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<sup>1</sup> A detailed review of the problem of the cessation of intellectual development is published as Bulletin No. 8, Educational Research Bulletins of the Catholic University, Vol I, 1926.

all others combined. Despite its limitations it is still being employed and results deduced in this indirect manner are accepted as valid evidence. The most frequent form of the theory identifies the cessation of intellectual development with the anatomical maturity of the brain. This view assumes a high positive relationship between brain volume and intelligence. This theory is but one example of a general tendency to interpret mental life through analogies with physical growth and development. The validity of such analogies is commensurate with the correlation existing between intellectual and physical traits. Recent research has shown beyond question the very slight and even insignificant amount of such relationship.<sup>2</sup> The low correlation is sufficient evidence to refute contentions and theories based upon physical measurements. There is undoubtedly a relationship between intellectual capacity and cerebral characteristics but not size alone. The increase in the size of the brain, therefore, is of but little assistance in revealing the nature and characteristics of intellectual development. It would be best for educational psychology to reject the evidence that depends on such analogies and to proceed to the solution of these problems by means of the methods that psychology has devised. In view of the obvious limitations attached to this method no reference other than the foregoing will be made to whatever results have been secured from physical anthropometry.

The second method is that of repeated psychological tests on groups of representative children in order to estimate the annual increments in intellectual capacity. This method emphasizes the necessity of tracing the development of the same group of children over a period of years. In the case of the present problem it demands re-tests at the upper ages until no further increases in performances are observable. This method is the most exact. Its valid application necessitates large and representative groups of children, suitable tests and accurate statistical methods. It entails considerable difficulty principally in the time required and in securing representative groups beyond the elementary school age. It is a well known fact that high school

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<sup>2</sup> Cf. Gates, A. I., *The Nature and Educational Significance of Physical Status and of Mental, Physiological, Social and Emotional Maturity*. J. of Educ. Psychol., xv, 1924, 329-358.

students are not typical of individuals of the same chronological age. The process of elimination has made them a select group of superior ability. Children over thirteen years of age in the elementary school are so frequently retarded that they cannot be considered representative of children of the same chronological age. A somewhat similar difficulty is encountered in investigating the rate of development in children of pre-school age. Studies of such children in nursery schools have contributed much valuable information but the numbers are usually small and the children of superior rather than of average ability.

The third method has been most frequently employed and while its limitations are generally recognized the results secured have been accepted more or less uncritically. It consists in estimating the performances of groups of children of different ages. It involves the assumption that any age group represents what the preceding group will be in the course of a year or whatever interval is employed. When large numbers are included this assumption may be accepted as valid but its validity decreases rapidly with reductions in the numbers of children for each age group. As in the case of the second method it presumes that the members of any and all groups are representative of children of that age, an assumption that is only occasionally fulfilled. The most glaring violations of essential requirements are those where successive classes of high school students are used as representatives of individuals of the same age. Such a technique fails to distinguish between rate of development and age of maturity. Increasing median scores with successive classes usually indicate the amount of elimination that has taken place rather than the development of a constant group. Many studies of the intelligence of high school students have been employed to prove various theories of development in spite of the patent errors which such methods involve. Assuredly scientific accuracy is as important in education as in other departments of knowledge. The demand for information and the youthfulness of the science should not serve as excuses for the most flagrant violations of precise methods and common sense. While this method possesses possibilities, it entails difficulties and precautions which must be observed. The number of instances in which such requirements have been observed is exceedingly small.



The latter methods have been the principal sources of information on the question of intellectual maturity. In the present review there is neither necessity nor excuse for including the so-called conclusions arising from cerebral measurements or the results of tests given to such highly selected groups as high school students when studied by the successive age method. Neither is it necessary to describe the many theories that have been advanced on the basis of no experimental evidence whatever. The older literature on educational psychology is rich in conceptions of intellectual development whose claims for attention rest primarily on their ingenuity rather than on their agreement with the observed facts. In a problem such as this, experimental evidence alone is valid, the rest is speculation.

On the basis of the results secured in the course of standardizing the Stanford Revision of the Binet tests, Terman claimed that the upper age limit for the development of intelligence was approximately sixteen years. This concept may be regarded as little more than a hypothesis for the number of individuals above this age was small. Nor can they be regarded as representative of a more unselected group of the same age. It is also probable that the Stanford is not well adapted to the measurement of ability beyond the twelve year group of tests. Terman regarded his results as indicative rather than as final. This age remained, however, as the generally accepted age for the cessation of intellectual development in spite of a few more or less sporadic attacks upon it. This definition of intellectual maturity prompted a large number of studies of the upper limits of ability.

The utilization of psychological tests on a large scale in the United States Army during the war afforded a mine of results on many psychological problems. Perhaps the most significant findings were those that showed that the average score of very large groups was equal to a mental age on the Stanford of a little over thirteen years. Thirteen was then accepted as the age beyond which there is not much appreciable increase in intellectual capacities. It is not necessary in this paper to consider in detail the construction of this hypothesis nor the limitations of the army test results. It is sufficient to note that these limitations are so numerous and so serious as to justify the complete rejection of the interpretations that have been

placed upon the army results. The evidence for a later age of cessation is strong enough to refute by itself the thirteen year theory. The latter type of evidence may be reviewed while omitting from consideration the deficiencies in the army data proper.

It is noteworthy that the army results alone have been the source of the theory of the early maturation of intellectual abilities. Some further evidence has been adduced by Doll which has been derived for the most part from the use of the army tests and which he interprets as confirmation of the thirteen year limit.<sup>3</sup> His evidence and the interpretations that he has placed upon it may be examined briefly. His contentions are based on several sources. Of these the first included the army results already mentioned. His second argument is based on the results of the application of Alpha to 500 school children in a typical grammar school. He reports increasing median scores up to thirteen years of age but no increases thereafter though significant numbers were examined for all ages up to sixteen. It should be very evident that children in grammar schools who are over thirteen years of age are usually retarded in their mental development. Their test scores would not, therefore, be above the thirteen year norm. The absence of increases beyond this age should not be interpreted as indicative of any age of cessation of development but rather as evidence of the intellectual retardation of children beyond thirteen who are still in the grades. To expect a solution of the problems of intellectual development by such methods as these savors of a lack of appreciation for the necessity of accurate methods as well as of an understanding of retardation factors.

His third argument is essentially similar. The scores of 500 delinquent boys in a reformatory showed no increases beyond the thirteen year median for succeeding ages though the chronological ages increased to 16. It has been demonstrated repeatedly by numerous investigators that delinquents when con-

<sup>3</sup> Doll, Edgar A., *The Growth of Intelligence*. Psychol. Mono., Vol. 29, No. 2, 1921.

Doll, Edgar A., *The Growth of Intelligence*. J. of Educ. Psych., x, 1919, 524-525.

Doll, Edgar A., *The Average Mental Age of Adults*. J. of Applied Psychol., iii, 1919, 317-328.

sidered as groups are below the average in intellectual ability. This is particularly true of those who have been committed to institutions such as that included in Doll's investigation. To find that there are no increases beyond the thirteen year level is proof of the intellectual retardation of the group rather than of the cessation of development at this age. Had Doll repeated his tests a year later his results would have possessed more significance. This was not done, however, and the net result of this phase of the investigation is merely a confirmation of well known facts rather than a contribution to the problem of intellectual development. It is not only possible but probable that Alpha is not well suited to such a purpose as this.

His fourth and the final of his principal arguments is based on re-tests of a group of feeble-minded children at Vineland. He states that such repeated examinations showed increasing mental ages up to a chronological age of thirteen with no increase thereafter. Inspection of his tables, however, show that there were increasing medians up to fifteen in the case of the moron group. Both Terman and Kuhlmann have called attention to this obvious discrepancy between Doll's statement and his data. It should also be noted that results secured from studies of the development of intelligence among the feeble-minded will indicate relatively little regarding intellectual development among normal individuals.

Excepting the army results and the inadequate data of Doll no other evidence has been advanced in support of the thirteen year limit. Kuhlmann<sup>4</sup> has found no increases beyond fifteen in his revised tests and Dearborn<sup>5</sup> none beyond fourteen years and a half approximately. All of these theories must yield to the more substantial evidence of other studies.

A number of investigations have been reported that cast some light on the problem under discussion. Some of this evidence is indirect and negative. Negative results are valuable, however, in eliminating from consideration other less reliable data.

Brooks<sup>6</sup> studied the rate of intellectual development between

<sup>4</sup> Kuhlmann, F., *A Handbook of Mental Tests*. Baltimore, 1922, Pp. 208.

<sup>5</sup> Dearborn, Walter F., *The Intelligence Quotients of Adults and Related Problems*. J. of Educ. Res., vi, 1922, 307-325.

<sup>6</sup> Brooks, Fowler D., *Changes in Mental Traits with Age*. Teachers College Contributions to Education, No. 116, 1921, pp. 86.

the ages of nine and fifteen by the re-test method. Between these ages gains were positive and regular. The gains made between fourteen and fifteen are practically as large as those made at earlier ages. The cessation of intellectual development cannot be sudden. There is undoubtedly a period preceding such cessation in which the gains from year to year decrease until maturity is reached. If cessation is gradual and Brooks' results are reliable, the limit of development is not reached nor closely approached at fifteen years of age among normal children. If cessation occurred at fifteen or even sixteen the gains would undoubtedly have been much smaller at the higher ages. The only valid conclusion from this study is that intellectual development does not reach maturity at fifteen or for some time after this age. This evidence is sufficient to overthrow the interpretations placed upon the army results and those secured by Doll.

Confirmation of Brooks' conclusions is found in the work of Bickersteth.<sup>7</sup> The age groups studied in this later investigation did not include any children beyond sixteen years of age. The numbers involved and the tests included contribute to the validity of the conclusions. Bickersteth found that with the exception of certain memory and motor tests there is no indication at which innate capacity reaches its maximum development. The increases from age to age, however, point out that cessation is not immediately in view at fifteen or sixteen years and that probably increases of considerable magnitude are in prospect after the highest age studied in this investigation. The inclusion of tests for many different mental functions in this study is a marked improvement over the frequent method of employing general intelligence tests where averages may conceal significant variations in the maturity of different abilities. The results obtained by both Brooks and Bickersteth indicate quite clearly that there is no cessation of intellectual development before fifteen and a half and the magnitude of the gains at this age point to the improbability of any immediate cessation after that age.

A study by Mrs. Woolley is unique in the character of the group investigated.<sup>8</sup> The re-test method was employed with a

<sup>7</sup> Bickersteth, M. E., *The Application of Mental Tests to Children of Various Ages*. Brit. J. of Psychol., ix, 1917, 23-73.

<sup>8</sup> Woolley, H. T., and Fisher, C. R., *Mental and Physical Measurements of Working Children*. Psychol. Mono., xviii, 1924, No. 77, pp. 247.



group of children who had applied for work permits and had returned at regular intervals to the laboratory for further experiments. The members of this group are undoubtedly more representative of children of the same chronological age than those included in any other study of this problem. Her data show that there are gains up to the age of eighteen. Some differences were found for different abilities and it is noteworthy that memory ability appears to reach maturity somewhat earlier than do the other capacities. Similar results in this respect were obtained by Bickersteth. While the improvements at the higher ages were relatively small they indicate that intellectual development does not reach its upper limit before seventeen or eighteen with small possible increments after these ages.

The evidence supplied by Mrs. Woolley and by Bickersteth and Brooks point conclusively to the erroneous concepts of intellectual cessation that have been advanced on the basis of the Army results, Doll's investigation, and the results of Dearborn and of Kuhlmann.

A final study requires passing mention. Teagarden employed the successive age method with a restricted number of tests.<sup>9</sup> The group studied was small and cannot be considered typical of unselected children of the same age. The average intelligence of the group was considerably below that of unselected children. The successive age method is not as precise as the re-test method. The validity of the tests is at least open to question. Neither the raw data nor the smoothed medians bear out the conclusions that Miss Teagarden has drawn. It is maintained that cessation does not occur before seventeen or eighteen, depending somewhat on the different abilities. But the limitations of this investigation preclude employing its results as confirmation of those secured by previous students of this problem.

While cessation probably does not take place before eighteen for normal individuals, little is known regarding the age of intellectual maturity among feeble-minded and among superior individuals. It is possible that the retarded differ from normal children not only in their rate of development but also in the

<sup>9</sup> Teagarden, Florence M., *A Study of the Upper Limits of the Development of Intelligence*. Teachers College Contributions to Education, No. 156, 1924, pp. 112.

age at which maturity is attained. Kuhlmann has maintained the existence of such differences but various limitations in his results and methods prevent too much reliance being placed on this contention. It is quite likely that intellectual development among retarded children ceases somewhat earlier than among normals, but the evidence so far available does not yield a final proof to this hypothesis.

The age of cessation among superior individuals has been studied by Thorndike.<sup>10</sup> The groups were composed of high school students and accordingly were of superior ability. The re-test method employed distinguishes these studies from all others that have dealt with such selected groups. The results show considerable gains in the functions tested beyond eighteen years of age. As the rate of gain at the highest ages studied was still large it is most probable that development continues for some considerable time after the age of eighteen. The gains were relatively greater than those found by others for normal individuals at this age and indicate the probability of a later cessation of intellectual development among superiors than among average subjects.

This résumé of the present status of the question of developmental cessation for intellectual abilities reveals the comparatively small amount of valid information possessed on this important topic. Much of the evidence that has been adduced must be discarded on account of imperfections in the methods by which it has been obtained. Possibly the only valid conclusion is a negative one, namely, that cessation does not occur before eighteen years of age in normal or average individuals. It is probable but not definitely proved that there are differences in the age of cessation for different degrees of ability as well as differences in rates of development. It is likewise very probable that differences exist among abilities in the age at which these mature. This would indicate the futility of employing general tests in the future investigations into this problem.

Improvements in technique are essential. The re-test method appears to be the only method capable of yielding valid results.

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<sup>10</sup> Thorndike, E. L., *On the Improvement in Intelligence Scores from Fourteen to Eighteen*. J. of Educ. Psychol., xiv, 1923, 513-516.

Thorndike, E. L., *On the Improvement in Intelligence Test Scores from Thirteen to Nineteen*. J. of Educ. Psychol., xvii, 1926, 73-76.

The nature of the tests to be employed requires careful determination. The probability of differential maturity for various abilities demands that specific tests be included. The use of such general tests as the Stanford involves average rates and average ages of maturity. Such averages will always conceal significant differences in particular rates and particular ages of maturity for different abilities.

T. G. FORAN.

## SCHOOL REFORM IN POLAND

The present wave of educational activity which has been so pronounced in this country has its parallel in Europe. The resurrected Republic of Poland is exerting all its strength to regain its former prestige as one of the most cultured nations of Europe. It attempts to overcome the deficiency occasioned by a century and a half of oppression under the rule of three greedy powers of central Europe. The one hundred and fifty years of political subjection has had a marked influence. It stifled political and social development, reacting upon all classes of the nation.

The freedom which Poland now enjoys dates back from 1918, when the Allies recognized Poland's inalienable right to freedom and political independence. Poland's new government was confronted with the problem of reuniting the fragments of the once powerful Republic. The difficult task of establishing a new social system, a new spirit of unanimity, and an awakening of new group consciousness was to be attempted.

There arose the problem of free public instruction. In Poland this was a difficult problem to solve. While in other countries the educational system is a product of evolution, lasting many decades, in Poland such a system had to be prepared overnight. The Constitution provided for a Ministry of Creeds and Public Instruction. The task of the Ministry of Education in the new Poland is to replace the former varieties in the schooling organizations by a new system, united and based upon the acquirements of pedagogical knowledge, and upon the realization of requirements of Polish psychology and Polish collective life.

Freedom gained in 1918 was not attended by the resumption of peaceful life. Less than two years later the Bolshevik hordes swept down and overran the country, destroying everything they encountered. Poland did not falter nor shirk her duty. As in 1241 at Lignica she saved Western Civilization from destruction by the Tartarians; and as in 1683 Sobieski saved Vienna and Christianity from the Turks; so again in 1920, Poland assumed her burden quietly to defend modern civilization against Bolshevism. Battles of varying intensity and doubtful outcomes were fought until the invaders were overwhelmingly routed at



Radzimin on August 15, 1920. The victory came on the feast day of the Patron Saint of the nation, and the Poles regard this victory as the "Miracle at the Vistula."

Racked by the ravages of war and scourged by the invading and retreating armies of unfriendly nations, Poland, which for six years had been used as the battleground of the Allies and Central Powers for the supremacy on the Eastern frontier, was finally permitted to resume normal life. But what handicaps were placed in her way! Her industries were destroyed; social life was disturbed; school property was in ruins; and the whole country was hungry and poverty stricken. The enemy carried away almost all property and did not even leave a churchbell which could be sounded to announce the arrival of Peace.

At that time school life was materially disturbed, because young men were serving on the battlefields, and the professors were employed in the war industries. Finally, in 1921, full educational activity was resumed. School legislation was given precedence over all other important legislation. A school system was organized. This system was based upon the traditional European systems, which consisted of a seven-year elementary school, a secondary school or gymnasium with an eight-year curriculum, and the higher school or the University. Under the able leadership of the Minister of Creeds and Public Instruction, Dr. Stanislas Grabski, work was carried on and changes were made from time to time in order to take care of extenuating circumstances. However, such makeshift arrangement could not be continued indefinitely and a more permanent organization would have to be established.

Up to this time educational reform followed two trends: The progressive element demanded that the completion of the seven-year elementary school be made compulsory, and that the elementary school be the foundation for any advanced educational training. In their plan the secondary school would be made accessible to all who had completed the elementary school. The more conservative element, composed of the majority of teachers in the secondary schools and of professors in the higher schools, defended the present eight-year secondary school and the four-year elementary school. They contended that the seven-year elementary school should not become a mere preparatory school, but that it had a definite function to perform: namely,

to give the best possible training to the greatest number of children. The conservatives also maintained that to lower the standard of the secondary school in order to provide easy promotion from the elementary school to the secondary would react unfavorably upon the latter, and in the end would lower the cultural standard of the nation itself.

The Minister, therefore, deemed it wise to pursue a middle course. Dr. Stanislas Grabski is an able educator who is fearless in conviction and undaunted in spirit. He has finally brought to the attention of the Diet a plan of reorganization and reform which provides many changes, some of which are radical departures from the orthodox conceptions found in the old school system. There are three fundamental principles which underlie his program for the training of youth: First, the purpose of a school is to train one by the use of educational materials in the ability to think clearly and develop the independent spirit, so that after leaving school he will be able to shoulder the responsibilities of life. The human being is no longer to be considered merely as a potential storehouse of knowledge. Second, the school system is to be flexible and of a type that would provide an easy transfer or promotion from one type of school to any other type. Third, the curriculum is to be so arranged that the child need not decide upon a vocation or profession until he has reached the age when he is better able to ascertain for himself which professional courses he wishes to pursue.

The educational reform program looks forward to changes principally in the secondary schools. However, the elementary school system will be modified somewhat and adapted to meet the proposed changes which will be made in the secondary schools.

As to the type of elementary school which is to be established much depends upon the prospective school population; hence, in some sections there are one- or two-room schools with an enrollment of 30 to 80 pupils. The larger community has a school with more classrooms. The seven-year seven-class schools with the highest and fullest program are found in the cities. In so far as there appears to be a difference in the program of studies in the different types of elementary school, no uniformity existed. In the new program the plan proposes to establish districts which would consist of affiliated small schools and at least one seven-

class school in which the pupils of these "branch" schools would complete their elementary education. The principal of this central school would supervise the instruction in the outlying schools. This grouping will, no doubt, be of great value in bringing about uniformity of instruction. Transfers from one school to another can be made with no inconvenience and no loss of time to the pupil. For those who do not complete the full seven-year course of study there are "complementary" schools which are of the industrial or vocational character.

An innovation is introduced in the secondary school. The Minister proposes to arrange the eight-year course into three cycles. The first three-year cycle will be known as the lower lyceum; the second three-year cycle will be the higher lyceum; and the third two-year cycle as the gymnasium proper. The plan is original and unique in so far as it attempts to give a complete technical or vocational training exclusively in the secondary school. Formerly the secondary school was regarded as one which would give a general course—a sort of preparatory cultural course which was pursued by all who contemplated attending the university.

Vocational training was looked down upon with disdain and considered basely inferior. The Minister attempts to bring about a new concept of vocational instruction. His plan stresses technical training and considers it very essential to the welfare of the nation. From the social point of view technical training is considered on par with the purely cultural training.

Thus, he has two types of lycea: one for the liberal arts courses, and the other for practical vocational courses. Both types will enjoy equal privileges in national legislation. The function of the Lyceum will be twofold: first, to furnish vast numbers of competent and trained artisans who have enjoyed the benefits of secondary education; and second, to furnish the gymnasia with a contingent of eager youths who have demonstrated competence to pursue higher learning.

The Lyceum of six grades or classes will be divided into two parts: the lower lyceum and the higher lyceum. The curriculum of the lower lyceum will be substantially the same as that which now exists in the three upper grades of the elementary school. This arrangement is kept in order to provide easy transfer from one kind of school to another. When the work in the lower

lyceum is completed the pupil will be able to continue his work either in the higher lyceum, or in a vocational school, or even direct his energies to remunerative tasks. The program of studies in the lower lyceum forms a unified whole.

The curriculum of the higher lyceum, covering a period of three years is divided into several groups or types; such as, classical course, humanities, mathematical-scientific, and vocational courses (commercial, technical, etc.). When this second cycle of studies is completed the student will be required to pass an "examination of maturity" (called *matura*). The graduates will be entitled to the same privileges as those graduating from the gymnasium with the exception of the privilege of entering the higher schools. The satisfactory completion of work in the gymnasium will remain as one of the requisites for entrance into the higher schools.

The third cycle—the gymnasium proper—will embrace a two-year general cultural course which would serve as a preparation for specialized study at the Universities or other schools of higher learning. This course may be extended to three years if the student so desires. The aim of the gymnasium is to give a general basic course which would also place some emphasis on specialized study. Three types of courses are offered:

1. Philological, with Latin and Greek; a thorough course in modern languages, and a minimum of mathematics and natural science.
2. Humanities, with Latin; maximum time devoted to History, and a minimum to modern languages.
3. Mathematical-scientific; maximum time devoted to the study of natural sciences and mathematics, and a minimum to other studies.

In addition to the type of gymnasium just described there will be another type which will specialize in vocational or technical courses. In these schools the students will receive a thorough preparation in the various Engineering branches. Among the vocational gymnasia is a type which will prepare teachers for the common schools. The curriculum in this type of school will consist of intensive study of Educational Psychology, and Methods of teaching. This type of "normal school" is intended to relieve the congestion now existing in the present "Seminaries" (Normal Schools).



The satisfactory completion of the eight-year course of study and the successful passing of the examination of "maturity" is required of the student who wishes to continue his studies in the Universities or other schools of higher learning.

That in substance is what the new reform program provides. It may be difficult for us to evaluate the merits of the new plan. However, one thing is certain; when the proposed plan is put into effect it will solve one of Poland's greatest deficiencies: namely, a trained middle class. Previously, the curriculum of the secondary school with its compact organization made no provision for the student who wished to change his course of study. A nine- or ten-year-old child was forced to decide upon the course of study which extended over the next eight years. He either completed that course or lost a great deal of time making up work if he transferred. The new program enables the student to make a change at three convenient periods, i.e. when he reaches the ages of 14, 16, or 18 years. The easy transfer from one course to another at these three convenient periods enables the youth to pursue studies for which he is best qualified. If economic conditions prevent his continuation of school work he has a convenient stopping place. The old plan in the eight-year gymnasium had no such provision. If the student dropped his studies he was a possessor of training which fitted him for no training. Now, with the new arrangement and new grouping of subject matter the student is assured of a completed education. Each cycle marks the completion of a type of training. And so when the child completes the first cycle in the secondary school he has choice of entering the higher lyceum, the vocational school, or taking up some remunerative task. One who completes studies in the vocational lyceum will have learned the fundamentals of his trade. The graduates of the vocational gymnasium will have qualifications needed to become a technologist. The higher schools will prepare experts in the various fields of Engineering.

The eagerness and desire for learning which so manifests itself in Poland is a healthy sign. The time is very appropriate to direct these energies so that productive work will result. A proper distribution of learning is very essential to the structure of the social fabric of any nation. The compulsory education which is required by law will do much toward enlightenment.

The age limit of compulsory education extends to the period when the child reaches his 17th year. Only physical needs such as shortage of school buildings and teachers limit the full application of the law. However, these deficiencies are being overcome rapidly.

The school reform plan is not worked out in every detail. The program of studies and the distribution of time has not been definitely settled. It is expected that even the details will be completed in time to put the plan into operation this year.

In the proposed plan much attention is given to the improvement of education in the rural districts. Since approximately 70 per cent of the population is engaged in agriculture, and the desire for learning is manifested as earnestly in those districts as in the cities, it is very proper that the new reform plan takes cognizance of this fact and actually tries to help these outlying districts.

Although the supporters of the new plan are enthusiastic and assure its success, their views are not shared by the radical press. A scathing condemnation and denouncement is all the latter have to offer. Cry is raised against the new plan because, they maintain, it accentuates class distinction in which the wealthier class will be favored. The radicals show no mercy and decry the fact that general cultural training is being superseded by practical training. One of their objections is that the Minister is not concerned with development of men of learning but attempts to educate government workers and only give them training which they need in the performance of their daily routine tasks.

After all, this is an educational experiment undertaken under stress of great difficulties. No doubt many modifications will have to be made according as the plan meets successive tests of actuality. All classes of the population must be taken care of—neither the cultural nor the practical can be sacrificed. But the aim is intelligent and the courage apparent. The very fact that the new Poland recognizes the fundamental importance of education and approaches the problem so constructively augurs much for the future.

FRANK J. DROBKA.

### PACIOLO, VENICE, 1494

Something akin to reverence takes possession of me when I turn the key in the bookcase and take from its plain black box a large volume bound in white leather and read on its title page, Venice, 1494, for it is one of the oldest books ever printed from loose metal type in Roman letter.

Contemporary with Columbus is my first thought.

What a marvelous panorama of human ambition, of toil, of greed, of duplicity, of enterprise, of discovery, of human progress unrolls before me as I hold in my hand this early product of the primitive printing press of Venice.

My second thought, akin to the first, is to wonder if Columbus ever saw a copy of the book, and to hope he may even have seen and handled and read this identical volume. It is not impossible, and may even be probable, since he was interested in mathematics in all its subdivisions, particularly to those pertaining to commerce, and this volume is a very thorough work on arithmetic, geometry, and proportion, and contains the earliest published treatise on double-entry bookkeeping, also the first European treatise on algebra.

One can only faintly guess the devotion to learning which must have characterized the production of this work. Imagine the hooded monks in their barren cells, sitting at rude tables, with quill pens laboriously writing out for the guidance of others the instructions they had received, while among them, carefully and painstakingly directing, supervising, and correcting, walked their master teacher, Fra Paciolo. So well done was their work of composition and the subsequent work of the printer and the book-binder that today it remains a marvel of book making.

Still in its original binding the book looks but little the worse for the wear and tear of more than four centuries. The covers both front and back are slightly warped; some of the pages are discolored; many are perforated by bookworms; a split in the back shows the stitching of the leaves to be intact, and the ink, the red as well as the black, is apparently as fresh as when it came from the printing press. One may well wonder what ingredients went into ink and paper. The ink we know was

made of vegetable dyes, and the paper was hand made from rags, and unsized.

We can better understand the human elements that entered into the work, the zeal of the monks to further the spread of knowledge so jealously guarded and kept alive in the monasteries during the thousand years of intellectual darkness that followed the fall of Rome, and the pressing need of trained men to carry on and to record the business transactions involved in that marvelous development of commerce that characterized the closing years of the fifteenth century.

In fact, it was the necessities of the enterprising merchants of the Italian cities, Venice, Genoa, and Florence, that brought about the invention of double-entry bookkeeping. Paciolo's is the earliest satisfactory system of which we have any record. We do know, however, strange though it may seem, that a high development of double-entry was known and quite generally used long before single-entry.

Paciolo's system was carried to the Netherlands, and from there to England, from which country it gradually spread everywhere. It is interesting to note that as early as 1543 an English translation was printed. Italy, Spain, and France, then the chief commercial countries of Europe, had practiced somewhat systematic keeping of accounts even before 1300, but of these early forms practically nothing is known.

Paciolo seems to have been far-sighted in many ways, as the inclusion of algebra, then unknown even to most European scholars, shows. In perfect accord with the principle of education which connects the known with the nearest related unknown, he begins double-entry bookkeeping with the familiar equation: Goods equals Proprietorship. The basis of his whole science is that each business transaction shall be so entered that while the form of the equation is altered, the equality of its members is preserved. Much nervous wear and tear on the part of bookkeepers might be saved if Paciolo's recommendation to balance the ledger only on the opening of a new book were generally observed, but the exigencies of modern business would scarcely permit such a saving.

Both sides of the paper are utilized for printing, but only the right-hand pages are numbered. As consecutive numbers are used, it is really a numbering of leaves rather than paging.



The old familiar diagrams in geometry appear in the margins, and no imagination is needed to reconstruct the propositions they are meant to prove. It is to be regretted Paciolo did not tabulate his bookkeeping accounts. Instead, in printers' language, those are "run in."

Of major interest, however, is his treatment of arithmetic, geometry, and algebra. The art of multiplication has suffered a sad decline since the days he taught mathematics. In view of the some ten or more modes of multiplication he gives with solutions in the margin to exemplify his teaching, our one and only method, learned in about the third grade with many tears and much moral suasion, fades into insignificance. One device which he calls "Multiplicare per quadrilatero" looks interesting, but on examination proves not so formidable.

The number 5432 is to be multiplied by itself. Instead of writing the partial products under each other, each successive number one place to the left, he places each digit in a little square with the partial products directly under each other, forming a rectangle:

	5	4	3	2	
	5	4	3	2	
1	0	8	6	4	4 2 6 6
1	6	2	9	6	
2	1	7	2	8	
2	7	1	6	0	
	2	9	5	0	

Beginning at the upper right corner he proceeds to add, adding obliquely up and to the left, writing the resulting figures down the right side and across the bottom to the left. Reading from the left across and up, he secures the "summa."

Poring over these pages one keenly regrets a neglected education. What delights would not open up to us if we could read this fifteenth century Italian! Some of the devices resemble divided squares familiar in the kindergarten and first grade

work, while others are perfectly incomprehensible owing to our meager ability to translate more than an occasional noun or adjective even by use of a vivid imagination. Fra Paciolo was more ambitious than we, or more devoted to doing work for his pupils, for in this multiplication tables every number seems to be multiplied by every other number up to 100.

Evidently Venice was used to turbulent times in whatever corresponded to the wheat pit in those days, for a full page is given to illustrate the finger sign language. The left hand, palm out, thumb and three fingers extended, fourth finger folded against the palm, means one. The same, but with the next finger also folded, means two. The left hand is used for units and tens, the right for hundreds and thousands, thus to the reader the number is presented to be read left to right as usual.

As one by one the pages are turned, one wishes the wide outer margins had all been filled with diagrams, but since each new subdivision of the subject is begun with an illuminated letter, one feels that is some recompense. These illuminated letters vary from one and one-eighth inches square to one and one-half by one and three-fourths. The capital F in the smaller size shows a human figure seated, holding a spray of leaves forming a background for the letter. The letter P displays a lionlike animal making haste to get away.

Another interesting feature of the book is Paciolo's frequent use of adages and fervid religious expressions. In speaking of carrying on big business transactions by credit, he says this "is not strange because, according to the Christian religion, we are saved by faith, and without it, it is impossible to please God" (Geijsbeek's translation).

The full title of the book is "Summa de Arithmetica, Geometria, Proportioni et Proportionalita."

In 1914 Mr. John B. Geijsbeek published a book giving a quite full history of this ancient treatise, with photographic reproduction of several pages with their translations. Mr. Geijsbeek's book is of special interest to students of accounting since by his reproductions and translations he has given the earliest recorded history of their science.

Summa de Arithmetica is now in the library of the School of Commerce, Finance and Accounts of Denver University, a highly treasured volume.

EFFIE E. BAKER.

## CLASSICAL SECTION

This section aims first of all to act as a bureau of information for teachers of the Classics; particularly those of Catholic schools. Questions sent to me will be answered in these columns or by personal letter; or they will be turned over to persons fully qualified to give them proper consideration. It aims also to keep its readers informed of the most important movement and events in the world of the Classics, especially such as bear on the teaching of Latin and Greek in secondary schools.

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### *Notes on Ecclesiastical Latin (Continued).*

#### *VI. Special Observations on the Use of the Various Parts of Speech (Continued).*

##### *2. Adjectives (Continued).*

##### *(c) Metathesis of the Adjective (or Participle).*

Christian writers of the first five centuries sometimes have a modifier agree with one noun, which according to the context should rather agree with another. This construction is poetic, of which classic prose offers very few examples, and often causes obscurity of the sense. Examples are:

*o magni cultores atque antistites numinum . . . !). Qo magnorum cultores atque antistites numinum . . . !).*

*sine ullis adminiculis rerum.*

*suspicone dominationis iniusta.*

##### *(d) An Adjective for the Genitive of the Noun.*

Even in the Classical period, though rarely, an adjective replaces a noun in the genitive case, indicating the object of an action. Cicero says, for example, in *de or.* 2, 327: *servilis percontatio*; and Sallust in *Jug.* 41, 2: *metus hostilis*.

It also happens in classical Latin, though even more rarely, that an adjective replaces a noun in the genitive case, indicating the subject of an adjective, or denoting possession. Thus in Cicero *ad Att.* 6, 17: *erratum fabrilis*, and in Terence *Andria* 602: *erilem filium*.

Ecclesiastical Latin uses the adjectives for the genitive of the noun frequently and without restrictions of any kind. The following are a few examples:

*substantia principalis (=principis).*

*poscit enim plerumque res, nutricas adesse curas.*

*peniuria . . . frugum et angustiae fru mentariae artius nos habent.*

(e) *Numerals.*

The poets of all periods, but very rarely the authors of classical prose, use the distributive for the cardinal numerals. Writers of ecclesiastical Latin do this commonly. Thus:

*quadrini cardines (=cardines quatuor).*

*hunc (mundum) alii elementis ex quatuor tradunt et pronuntiant stare, ex geminis alii, ex singulis (ex uno).*

(f) *The Use of totus.*

*Totus* in classical Latin means "whole," a unit without reference to its parts. Late periods of Latinity use it to denote the whole with reference to the parts which compose the group. In other words *toti* is often used for *omnes*. Thus:

*in rebus fessis totis.*

*omnia seminaria totius vitiositatis abscidit.*

*Universus*, which in classical times means "universal," "general," was also used in the plural for *omnes* in late Latin.

3. *Pronouns.*

(a) *The Reflexive Pronoun and the Possessive Adjective of the Third Person.*

Space will permit the noting of a few peculiarities only.

*ipsum* and *se* are often interchanged in late Latin.

The question of the use of *se*, *suius* or *eum*, *eius* was a delicate one even in classical Latin. Evident confusion in the use of these forms, however, is quite evident in the late authors.

Many examples also occur of the pleonastic use of the reflexive pronoun, as:

*ipse (mundus) per se sibi neque dexteris neque laevas neque superas regiones neque imas . . . habet.*

(b) *Demonstrative Pronouns.*

As early as the time of St. Cyprian, *ipse* and *idem* are regarded as equivalents. This confusion is very frequent in St. Jerome.

Classical writers maintained a careful distinction between the demonstratives *is*, *hic*, *ille*, and *iste*. These distinctions begin to disappear as early as Quintilian, and are commonly confused in Christian authors. Probably the most common confusion is *iste* used for *ille*.



The use of a demonstrative pleonastically to reenforce a noun or pronoun is a characteristic of the vulgar language, and also to be found in the works of the Fathers.

(c) *Relative and Interrogative Pronouns.*

Little confusion exists among classical writers in the use of these pronouns. Later writer confuse them, especially the singulars *quis* and *qui*.

(d) *Alius* and *Alter*.

The distinction maintained in the Classical period between *alius*, as one of a group of more than two, and *alter*, as one of two, is well known. In late Latin the two words are practically synonyms, the context alone showing whether a group of two or more than two is meant.

*alius* and *alter* are also used sometimes with *hic*, *ille*, and *iste*, without any distinction of meaning.

(e) *Unus*.

*Unus* is often used by the Fathers with the force merely of an indefinite article, as seen today in French. It is also used in the plural for *quidam* and *aliqui*.

(f) *Tantus*, *quantus*.

*Tantus* and *quantus* in the plural as synonyms for *tot* and *quot* respectively is not uncommon in ecclesiastical Latin.

(h) *Uter*.

Not rare is the use of *quis* for *uter* as an interrogative pronoun referring to one of two things. The opposition substitution is less frequent.

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The demolition of the wall in Rome which follows the general course of the via Mazzarino has disclosed, at the angle of the via Panisperna, important remains of ancient Rome, some of which date back to the epoch of the Republic, while others certainly go back to the Empire. The details are not given.

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Of special interest to classicists is a recent book entitled *Demosthène* (Paris: Plon 6 f.), by Georges Clemenceau, former Premier of France. There is very much of a parallel here between the author and person he takes as his subject, although it must not be supposed that the book is no more than a parable. It is a brilliant historical essay. A reviewer has remarked: "M. Clemenceau is almost as incisive with the pen as in the tribune,

and he brings out the tragic greatness of Demosthenes with all the skill of a practiced writer."

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Prof. Chas. Knapp calls attention to a new Spanish series of Classical texts as follows:

As every one knows, Germany has had, for decades, its famous Teubner Series of editions of the texts of Greek and Latin authors. In the last decade of the nineteenth century, the Oxford University Press began the publication of the Oxford Classical Text Series, which has assumed imposing proportions.

During the World War France and Italy set about producing similar Series for themselves. The French Series, published under the auspices of the Association Budé, of which R. G. Kent wrote in *The Classical Weekly*, 18-17-18, now contains many volumes. Some of these are like the volumes of the Loeb Classical Library, in that they contain a text, Greek or Latin, on one page, and a translation (in French, of course), opposite the text. Texts and translations are also published separately. The Series contains also volumes on various aspects of classical literature and civilization.

The Italian Series, known as the Corpus Scriptorum Classicorum Paravianum, now includes many volumes. These, however, are all small. The text of the Aeneid, for example, requires four volumes.

I gave a short account of the French Series and of the Italian Series in *The Classical Weekly*, 15-135-136 (March 6, 1922).

In 1923, there was begun, at Barcelona, Spain, the publication of another Series of this sort, "Una Col·leccio Catalana dels Classics Grecs i Llatins," under the auspices of the Fundacio Bernat Metge. The Director of the Fundacio is Mr. Joan Estelrich (address, Apartament 789, Barcelona, Spain).

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Worthy of more than passing notice is Professor Sturtevant's review of "An Etymological Study of the Ten Thousand Words in Thorndike's Teacher's Word Book," by E. Y. Lindsay, which appeared in *The Classical Weekly* of March 22, 1926. Here is a book which all Latin teachers would find useful, but Professor Sturtevant (and I may add that few are more capable of passing on a work of this kind than he) discovers it to be faulty in method of development and most unreliable in general. It was a work that should have been attempted only by an expert linguistic scholar, and this Mr. E. Y. Lindsay very evidently is not.

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In *School and Society* for February 13, Mr. Wm. R. Price, in

an article entitled "Romance Languages as an Introduction to Latin," takes issue squarely with the article by Mr. Henry Grattan Doyle, published in *School and Society* for January 9, 1926. Mr. Price writes in part:

In America secondary schools from 75 to 85 per cent of all pupils who begin a foreign language drop it at or before the completion of two years study. That is a matter of great concern to educators worthy of the name and more interested in boys and girls than in particular subjects of study. Many such educators (and among them are a few teachers of French, German and Spanish, I suppose) consider that two years of Spanish, for example, are quite inferior to two years of Latin. . . .

Mr. Price, still speaking for "educators worthy of the name," gives three excellent reasons in support of the declaration that "two years of Spanish . . . are quite inferior to two years of Latin."

It may be added that Mr. Henry Grattan Doyle is Professor of Spanish at George Washington University, and that Mr. Price is New York State Supervisor of Modern Languages in High Schools. Mr. Price has no ax to grind!

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A group of Latin teachers in Washington, D. C., working as a committee on written work recently made a report which for the amount of useful information it contains within its short compass cannot easily be excelled. It is divided into four sections: I. Principles Governing Written Work; II. Methods; III. Devices; IV. College Preparation. This report is published in *Latin Notes* for April, 1926, and also may be obtained from H. May Johnson, chairman of the committee, Eastern High School.

The following quotation from a letter written by Eugene Tavenner, Professor of Latin at Washington University, is of special interest:

It may be interesting to know that beginning in the Fall of 1925, Washington University, convinced that there were not enough solid courses required of the freshmen, has been demanding that all freshmen take in addition to other required courses in English, history, a natural science, and a modern language, one course in either mathematics, or Latin or Greek. Since many are not fond of mathematics, we have under this arrangement considerably over half of the freshmen taking either Latin or Greek. So far as concerns Greek, this means about 100 in the beginners' classes. How many of these will be sufficiently inter-

ested to continue we have as yet had no opportunity of discovering; but I do know that many have expressed their surprise at finding Greek both more interesting and easier than they had been led to expect. So it appears that, at any rate, we have succeeded in doing away with the bugaboo of extreme difficulty that has so long deterred students from taking Greek.

I might add that the University of Cincinnati took similar action at about the same time we did, but independently. That two large urban universities have thus seen fit to swing back in this direction at this time ought, I think, to give courage to those who have been struggling hard for many years against a foe who has not always been willing to fight openly, but who is being defeated in this section by the woeful inadequacy of the product of his system.

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The following courses in Greek and Latin are to be given in the next Summer Session of the Catholic Sisters College:

Latin I.—A rapid survey of the elements of the Latin language with practice in reading easy Latin prose. Rev. T. McGourty, Ph.D.

Latin IV.—Cicero, *In Catilinam*, I-IV. Rev. T. McGourty, Ph.D.

Latin III A.—Roman life. A course designed especially for teachers of high school Latin, touching on such phases of Roman life as the teacher must know for the proper presentation of the more human side of the Latin authors usually read in high school. Mr. M. McGuire.

Latin IX.—Prose Composition. A general course touching on all of the essentials of classical Latin. Dr. Roy J. Deferrari.

Greek III.—New Testament Greek. No previous knowledge of Greek required. Useful also to such as wish to refresh their knowledge of the main principles of the Greek language. Mr. M. McGuire.

Greek IV.—Xenophon, *Anabasis*, Books III and IV. An intermediate course. Dr. Roy J. Deferrari.

Greek IX.—Herodotus, Books VII and VIII. Open to students who have had Greek I, II, and IV, or their equivalent. Dr. Roy J. Deferrari.

ROY J. DEFERRARI.



## AFFILIATED HIGH SCHOOL AND COLLEGE SECTION

In a few weeks the work of the school year will officially cease and those who have done the service of the yeoman during the year will naturally be inclined to look back and review what has been accomplished. Doubtless there will be a good deal of satisfaction experienced when one notes the success which has been achieved and the service rendered. Side by side with this well-merited reward there will stand out, too clearly to be unobserved, evidences that further improvement is possible. This reflection will emphatically impress us with the truth of the remark, recently made by a well-known newspaper writer, "that we are eight-cylinder motors, yet we, for the most part, get along on two or three. Obstacles to be overcome, shortcomings which lessen our effectiveness both as to speed and accuracy, and other factors that make our progress halting and tortuous will disclose themselves to the teacher, who has grasped the value and inner purpose of the function of historical outlook in his profession. From such a retrospect he will learn where lie the lacunae that must be gapped, the weak points that call for repointing, and the opportunities for improvement which have hitherto been neglected. Each teacher will by this procedure be led to see his work in its relation to that of his fellow teachers. In short, from the past he will learn for the future.

The value of this meditation, like that of all meditations, will come not in the resolution that may be formed but in the execution of the same in action. As one educator puts it, "It is not in the moment of resolve but in the moment when the resolve is carried into action that moral value inheres. To take a stand on a question of right or wrong means more than to show one's allegiance to the right—it clears one's moral vision and gives him command of himself. Expression is finally the true test of morality. Lacking moral expression, we may stand in the class of those who are merely good, but we can never enter the class of those who are good for something." The mere desire to improve our work is not, then, sufficient. Proper means must be secured in order that this desire be realized in action. Among the many ways which suggest themselves for this purpose at-

tendance at summer school stands out most prominently at this time.

Each teacher of our affiliated high schools would render greater service to the cause of secondary education if he were able to enroll at one or other of the many summer schools now being conducted throughout the country for our Catholic teachers. It goes without saying that a summer school, whose principles, aims and methods are in accord with and based on the principles of Christianity, should be selected. To do otherwise would be aiding the already widening breach between science and religion. Society and the individuals who form it grow from what they feed upon. Professors of the ilk of those who openly or even covertly denied the existence of God, the human soul or who regard religion as superstition, hypocrisy and sham are not the type of inspirational directors for the Christian teachers of the youth of a Christian nation. "Pro Deo et Pro Patria" still expresses the ethos of the American people.

The work in course during the summer session will be determined largely by the findings which each teacher will have gathered from his honest and serious review of the year's work. A teacher should, before going to summer school, discuss the question of his needs frankly and fully with the principal of the school. Nothing will aid that needed teamwork in faculty action as will such conferences between teachers and the principal. The social outlook and wider needs of the school will naturally be uppermost in the mind of the principal, or at least should be, and this will tend to have the principal endeavor to advise his teachers to select one or more of the educational courses of a general nature. All things said to the contrary notwithstanding, a crying need of all engaged in American education today is to provide against the deadening effects of the treadmill of specialized professionalism, the offspring of over-centralization. A forth-going and outlooking mind is a *sine qua non* for every teacher, whose chief duty is to aid in the cultural development of our high school pupils. By the selection of such a course a proper balance will be kept between this, his main work, and the minor aims of his profession. His individual needs will guide the teacher in the proper selection of the other studies to be followed during the summer session.

Another advantage accruing from attendance at summer school for the high school teachers comes from the opportunities it affords them of meeting other teachers from the various sections of the country. Only those who have had the good fortune to experience these can realize to the full their benefits. Sisters Marie Paula in her chapter on the Summer School, the 17th chapter of her chatty little volume, entitled, "Talks with Teachers," sums up this value of attendance at summer school as follows, "It gives wide scope for comparing the methods of different teachers as well as for listening to new interpretations of old themes. Last of all, but surely not least, the summer school has an educational atmosphere. Practically all who attend are bent on self-improvement, and association with people such as these is no small factor in mental development."

The teachers in our affiliated high school who attend the summer school at the Catholic University of America at Washington, D. C., have the additional advantage of being able to meet personally those in whose charge the process of affiliation has been intrusted. By means of personal interviews and discussions they are able to receive profitable suggestions, which are immediate and large. For our high school teachers this is a unique feature among the many to be found at the Mother of all our Catholic summer schools.

During the six weeks devoted to the work of the session at Washington this year a Round Table for the teachers of our affiliated high schools will be held. The questions and topics to be discussed will cover the more important problems pertaining to affiliation. A careful and detailed analysis of the syllabus will be taken up, and the inner purpose of the process of affiliation will be studied. Our endeavor in these meetings will be to bring out and clear up those phases of the work which present the greater number of difficulties to the teacher in service. It is hoped that each high school will have at least one representative at these discussions, who will be ready to contribute from his experience for the benefit of all present. Finally, it is hoped that a healthy increase of *esprit de corps* will result, and each teacher attending will be given added inspiration and enthusiasm which will renew interest in the solution of the problems confronting our high school teachers.

## NEWS ITEMS

Notre Dame Academy of Kankakee, Ill., reports that its science laboratory has been enlarged and considerable new equipment has been added. Larger quarters have been provided for the high school library, and many new reading and study tables have been installed. A new typewriting and stenography practice room has been opened to accommodate the increased number of students who have selected this course as an elective.

The entire faculty of Notre Dame Academy of Washington, D. C., were the guests of the Secretary of the Committee on Affiliation recently. After inspecting the workings of the central office of Affiliation they visited the University Museum and the National Shrine of the Immaculate Conception.

Ancilla Domini High School of Donaldson, Ind., has been the recipient of some fifty reference volumes for the library. This school also reports that the value of its library has been increased as a result of its re-cataloguing according to the Dewey Decimal System.

On April 7, Reverend Leo L. McVay addressed the pupils of the Notre Dame Academy, the Fenway, Boston, Mass. He took as his topic, "The Pupil's Duty to Her School." After the lecture he visited the several laboratories, the art department, library and classrooms. Sister Mary, formerly of Trinity College at Washington, D. C., now Dean of Emanuel College of Boston, showed the visitor through the well appointed departments of the college and the new Gothic Chapel, which has recently been finished. The unique yet wonderful collection of art treasures and ivories, the gift of the late Reverend M. J. Danahey, has been tastefully arranged in a special section of the new museum.

Sister Mary Borromeo of College Misericordia of Dallas, Pa., gave an illustrated lecture on Virgil's Aeneid to the students of St. Mary's High School of Wilkes-Barre, Pa. The third prize given at the Convention of the Columbia Scholastic Press Association held during March at Columbia University, New York City, was awarded to *Mercyon*, the school paper of St. Mary's High School. The representative from this school, Mr. Gerald Keightley, was selected as one of the ten delegates from the winning schools who were chosen to edit the *Saturday Spectator* published at the university. The members of the faculty of St.



Mary's attended in large numbers the First Annual Convention of the Northeast District of the Pennsylvania State Educational Association, which was held in Wilkes-Barre on March 12 and 13. The freshmen boys of St. Mary's, under the able direction of Sister Mary Augustine, presented the drama, "Two Brothers of the Revolution." This was a part of a project in American history.

On April 6 Reverend Leo L. McVay visited the Notre Dame Academy at Roxbury, for a conference with the teachers of the high school department of the Academy.

On April 15 the Secretary of the Committee on Affiliation was the guest of the High School Department of The Academy of Notre Dame of Maryland, Baltimore, Md.

The Affiliated High Schools join with the students of the Academy of the Sacred Heart of Washington, D. C., in congratulating Sister M. Regina on the occasion of her Golden Jubilee. A solemn High Mass was celebrated by the Very Reverend D. J. Kenedy at the Shrine of The Sacred Heart, and the Students of the Academy composed the choir, which sang the Mass of the Angels on this occasion.

It is with deep regret that we record the death of the Superior General of Marymount College, New York City. Very Reverend Mother St. Constance died on Good Friday last at the age of seventy. The Faculty of Marymount has the heartfelt sympathy of all the other affiliated colleges and high schools.

LEO L. McVAY.

## EDUCATIONAL NOTES

### THE SUMMER SESSION AT THE CATHOLIC SISTERS COLLEGE

The regular Summer Session at the Catholic Sisters College begins with registration on Saturday, June 26, and ends on August 5. The following is a list of the courses to be offered this summer. Additional information can be had by writing to Margaret M. Cotter, Registrar, Sisters College, Catholic University of America, Washington, D. C.

#### A.M.

8	Philosophy of Education I.....	Fr. Kirsch
	School Administration and Management II.....	Mr. Monahan
	History of Education V.....	Dr. Cassidy
	Health Education.....	Miss Spencer
	Language in Grades.....	Sr. Louise
	Mathematics V (S-II).....	Dr. Ramler
	Latin I.....	Dr. McGourty
	French I.....	Mr. Schneider
	German I.....	Mr. Behrendt
	Biology VII.....	Dr. Parker
9	Principles of Secondary Education.....	Fr. Rooney
	Ethics.....	Fr. Brosnahan
	Mathematics VII (S-IV).....	Dr. Ramler
	Methods of Teaching Lyric and Dramatic Poetry.....	Mr. Hartnett
	Latin IIIa.....	Mr. McGuire
	Latin IX.....	Dr. Deferrari
	German IV.....	Mr. Behrendt
	Spanish I.....	Fr. Serrano
	Church History III.....	Dr. Browne
	Library Science.....	Mr. Schneider
	Art III.....	Miss Brown
	Music XXV.....	Mr. Henneman
	Biology VIII.....	Dr. Parker
10	History of Education III.....	Dr. McCormick
	Classroom Management.....	Fr. Rooney
	Introduction to Philosophy II.....	Fr. Brosnahan
	History of Philosophy IV.....	Dr. Rolbiecki
	Mathematics VI (S-III).....	Dr. Rice
	Biology VIII.....	Dr. Parker
	Biology I.....	Mr. Dardinski
	English VI.....	Mr. Hartnett
	Latin IV.....	Dr. McGourty
	Greek IV.....	Dr. Deferrari
	Music XXVI.....	Mr. Henneman
	French III.....	Mr. Schneider
	American Church History II.....	Dr. Browne
	General History V.....	Dr. Purcell
	Art IV.....	Miss Brown.

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|-------------|--|------------------|
| 11          | General Methods II.....                                | Dr. Johnson      |
|             | Methods in Arithmetic.....                             | Sr. Alma         |
|             | Methods of Teaching English in High School.....        | Sr. Louise       |
|             | Educational Tests and Measurements I.....              | Mr. Rock         |
|             | Mathematics XI (S-VIII).....                           | Dr. Rice         |
|             | Biology III.....                                       | Dr. Parker       |
|             | Psychology of Education I.....                         | Fr. McVay        |
|             | English XII.....                                       | Dr. Lennox       |
|             | Greek III.....   | Mr. McGuire      |
|             | American History I.....                                | Dr. Purcell      |
|             | Spanish III.....                                       | Fr. Serrano      |
|             | Music XXVII.....                                       | Mr. Henneman     |
| 12          | Primary Methods I.....                                 | Dr. Johnson      |
|             | Methods of Teaching History in High School.....        | Dr. Purcell      |
|             | Methods of Primary Reading.....                        | Sr. Alma         |
|             | Methaphysics.....                                      | Dr. Rolbiecki    |
|             | English XIII.....                                      | Dr. Lennox       |
|             | Comparative Philology II.....                          | Fr. Geary        |
|             | Greek IX.....  | Dr. Deferrari    |
|             | Music XXXIII.....                                      | Mr. Henneman     |
|             | Experimental Educational Psychology.....               | Mr. Rock         |
|             | Methods of Teaching English in Junior High School..... | Sr. Louise       |
|             | Science and Art of Study.....                          | Fr. McVay.       |
| <b>P.M.</b> |  |                  |
| 2           | Biology II.....  | Mr. Dardinski    |
|             | Music I.....   | Miss O'Brien     |
|             | Art I.....   | Sr. M. of Angels |
| 3           | Physics I.....   | Mr. Burda        |
|             | Chemistry III.....                                     | Dr. Ward         |
|             | Biology II.....  | Mr. Dardinski    |
|             | Art II.....  | Sr. M. of Angels |
|             | Music II.....  | Miss O'Brien     |
| 4           | Social Background of Civics.....                       | Dr. Cooper       |
|             | Physics II.....  | Mr. Burda        |
|             | Chemistry IV.....                                      | Dr. Ward         |
|             | Biology IV.....  | Mr. Dardinski    |
|             | Music V.....   | Mr. Boyce        |
|             | Music III.....   | Miss O'Brien     |
| 5           | General Psychology III.....                            | Mr. Rock         |
|             | Physical Education.....                                | Miss Keefe       |
|             | Music VIII.....  | Mr. Boyce        |

## NOTES FROM CURRENT PERIODICAL LITERATURE

*Administration and Supervision*

"The All-Year Schools in Newark." Wilson Farrand and M. V. O'Shea, *School and Society*, April 10, 1926. A report based upon investigations made to determine the efficiency of the all year schools in comparison with the so-called traditional schools. A perusal of this article will throw considerable light upon the

advantages of this new type of school for a continuation of which the writers argue.

"*New Tendencies in Negro Education.*" J. Victor Cools, *School and Society*, April 17, 1926. Interpreting the recent disturbances at Fisk and Howard Universities as part of a concerted movement to place black superintendents and black teachers in charge of black schools everywhere, the author argues against the wisdom of such a policy. The black needs the uplifting influence of wholesome contact with white people and the schools where white teachers and executives are employed offer the best opportunities for this contact.

"*An Experiment in Readjustment.*" *Catholic School Interests*, March, 1926. Describes measures taken in one parish to take care of retarded and maladjusted children.

"*Content and Method of Subject-Matter Courses in Teachers' Colleges.*" Charles S. Pendleton, *Peabody Journal of Education*, March, 1926. An attempt to differentiate teachers' college instruction from old line academic instruction. In the preparation of teachers, content should be blended with method, and the subsequent use of such matter by the teacher in the classroom should be kept in mind constantly.

"*A New Definition of the Functions of the Supervisor.*" Charles L. Spain, *Elementary School Journal*, March, 1926. Sketching the plan of organization in operation in Detroit. The functions of the supervisor are, first, research; second, training; third, field work. By means of research better methods are discovered, training contributes to putting them into operation, and by means of field work direction is given to both principals and teachers.

#### *Curriculum and Methods*

"*Patriotism and History Teaching.*" A. Curtis Wilgus, *School and Society*, April 10, 1926. The author protests against the distortion of history for patriotic ends and for the creation of partisan narrowness. A brief but highly suggestive article.

"*Chalk Talks in Religious Instruction.*" P. Henry Matimore, S.T.D., *Catholic School Interests*, March, 1926. The use of the diagram and blackboard sketch as a means of vitalizing religious instruction, illustrated by application to several fundamental religious truths.



"*The Character of Plays Presented in High Schools.*" M. A. Leiper, *Peabody Journal of Education*, March, 1926. Plays are widely used in high schools at the present time and have a real contribution to make to the education of the American child. Contains an analysis of plays acted during the last year by high school students in Kentucky, together with a list of sources from which high schools may draw.

"*The Pre-Primary: What It Stands For; What It Attempts To Do.*" Dorothea K. Lortcher, *Journal of Educational Method*, April, 1926. Describes the methods in use at the Susan B. Anthony School, Rochester, New York, to take care of children who, though chronologically six years of age, are not ready for first grade work.

"*Study Habits of High School Pupils.*" Percival M. Symonds, *Teachers College Record*, April 1926. A careful investigation of the study habits of two groups of high school students which indicate that the acquisition of right methods depends upon the type of assignments made by the teacher.

"*Determining Principles in Curriculum Construction.*" Boyd H. Bode, *Educational Administration and Supervision*, April, 1926. Criticizes undue reliance upon the scientific method in the construction of the curricula. Indicates the necessity of guiding principles derived from philosophy of education.

"*Revaluation of Modern Language Study.*" J. Warsaw, *School and Society*, April 17, 1926. An excellent article on the place and value of modern foreign languages in the curriculum. The author sets forth the arguments in favor of, and disposes of the objections against, the teaching of foreign languages in a masterly way.

"*The Status of Technical Grammar in the Elementary School.*" Edna Cotner, *The Elementary School Journal*, March, 1926. A brief survey of the place of grammar in the elementary school, together with an indication of a means for making grammatical drill function in the speech and writing of the child.

"*Some Results of Teaching College Students How to Study.*" C. C. Crawford, *School and Society*, April 10, 1926. Results of a study made at the University of Idaho during the first semester of the present year. A comparison is made between students taught how to study and those not so taught, showing the general superiority of the former.

*Educational Psychology and Tests*

*"The Relation of Extensive and Intensive Reading to Permanency of Retention."* Carter V. Good, *Pedagogical Seminary*, xxxiii, March, 1926, pp. 43-49. Measurement of parallel groups shows that in terms of retention for the purpose of solving problems and answering informational questions, extensive reading seems slightly more effective. In tests involving reproduction of ideas, intensive reading seems superior.

*"Summary of Reading Investigations"* (July 1, 1924, to June 30, 1925)—II. William S. Gray, *Elementary School Journal*, xxvi, March, 1926, pp. 507-518. A brief summary of the findings of the studies listed in the author's annotated bibliography which appeared in the February number of the *Elementary School Journal*.

*"Relative Intelligence of White and Colored Children."* L. D. Lacy, *Elementary School Journal*, xxvi, March, 1926, pp. 542-546. The average I. Q., as measured by the Stanford Revision of the Binet-Simon Test, of children in the kindergarten and first three grades of the schools of Oklahoma City is: colored, 91; white, 103. The average I. Q. of colored children of grades V to XII, inclusive, as obtained by the Otis Self-Administering Test of Mental Ability, is 82.

*"A Comparison of the Scores of College Freshmen and Seniors on Psychological Tests."* Robert S. Ellis, *School and Society*, xxiii, March 6, 1926, pp. 310-312. Correcting for elimination, senior scores are significantly higher on sentence completion, artificial language and opposites tests. Caution is urged in evaluating the results of language tests when there are important differences in the experience of those whose scores are compared.

*"The Construction of a Reading Vocabulary for the Primary Grades."* Arthur I. Gates, *Teachers College Record*, xxvii, March, 1926, pp. 625-642. A discussion of the merits of several criteria and the utilization of those deemed most significant in the arrangement of a vocabulary for reading purposes in the first three grades. The final list, comprising 1,500 words, classified according to parts of speech, is to be published in booklet form by the Bureau of Publications of Teachers' College.

*"Individual Diagnosis in Written Composition."* Matthew H.

Willing, *Journal of Educational Research*, xiii, February, 1926, pp. 77-89. A comparison of methods in determining individual errors in the formal elements of written composition, through the use of a correction-of-error test, the reproduction of an anecdote and original compositions.

"*What We Are Failing to Measure in Education.*" Herbert A. Toops, *Journal of Educational Research*, xiii, February, 1926, pp. 118-128. Suggestions are made regarding better use of available data and the determination and measurement of additional unique capacities. The advantages and possibilities of cooperative research in this connection are outlined.

"*Safeguarding the Final Examination.*" Harold D. Griffin, *School and Society*, xxiii, March 13, 1926, pp. 342-344. The possibility of dishonesty when new-type examinations are given to large groups is prevented by the author's method of administration.

"*First Step toward a Scale for Measuring Attitudes.*" Mark A. May and Hugh Hartshorne, *Journal of Educational Psychology*, xvii, March, 1926, pp. 145-162. A scale for measuring dishonesty is constructed by presenting opportunities for cheating, in series of difficulty. The results obtained from testing two groups with this scale are presented.

"*A Personal Constant.*" H. Heinis, *Journal of Educational Psychology*, xvii, March, 1926, pp. 163-186. The measure of the relation existing between the development of the individual and the normal growth curve is the Personal Coefficient. It is invariable for any given individual and is proposed as the best method of interpretation of intelligence examinations.

### *Principles of Education*

"*The Responsibility of the School to the Adult Population.*" Frederic R. Hamilton, *School and Society*, April 10, 1926. The author calls attention to the vital changes in the social and economic life that demand action on the part of educative agencies, particularly the school. The main services will be in the line of Americanization projects and in the formation of groups for the socialized discussion of problems that affect all alike.

"*What is Religious Education?*" Clara Chassell Cooper, *School and Society*, April 3, 1926. A clean-cut, courageous state-

ment of the vital connection between religion and education. The author admits no proper cleavage between secular and religious education and shows the fallacy of the maxim that the stage must have nothing to do with religion.

*"Education through Survivals."* Edwin G. Dexter, *School and Society*, April 3, 1926. An attempt to formulate the process of education, particularly as it concerns the impulses and interests, in terms of Darwinian natural selection and the survival of the fittest. One may not agree with all the author's conclusions, but many of his suggestions will be found helpful.

*"Definition of Art Education."* Leon L. Wilson, *School and Society*, April 3, 1926. In the words of the author, an attempt is made to define clearly and concisely those common art terms which are used most frequently, including art, art education, art appreciation, commercial art, fine art, industrial arts, etc. The correlation of art subjects with others, both in the elementary and in the high school, is also touched upon.

*"The Function of Philosophy in Liberal Education."* Herbert Sanborn, *Peabody Journal of Education*, March, 1926. A thoughtful analysis of the place of philosophy in education for leadership. Shows how philosophy must be the core of true education, humanizing science on the one hand, and, on the other, rationalizing humanism.



## REVIEWS AND NOTICES

**Winnetka Graded Book List**, by Carleton Washburne and Mabel Vogel. Chicago: American Library Association, 1926. Pp. 286. Price, \$1.75.

The Winnetka Graded Book List is a statistical report of an extensive investigation regarding children's library books made under an appropriation from the Carnegie Corporation. This list represents the effort to establish an objective standard for judging the books commonly read by children.

The Winnetka list is an attractive book and shows the result of much careful work. It is interesting because it offers information which is new and quite different from that of the usual library list.

Thousands of children in different states were asked for their likes and dislikes. The list gives the percentage of those who liked each book, together with the most characteristic of the children's comments handed in regarding it. The books are classified not according to the grades in which the pupils were actually enrolled but according to their reading grades based on standardized tests. The boys and girls are listed separately and this arrangement brings out many enlightening facts regarding their respective interests.

Statistically the list is comprehensive and furnishes a basis for the choice of seven hundred books but makes no claim to being a completely rounded out buying list.

Grades III to X are covered in the work but it is to be regretted that IX and X receive so little attention.

In examining the list one wonders whether the table showing the preferences of the children may not be subject to considerable variation since "likes can be so easily created in children by classroom activities and by direct efforts of the teacher and these factors might vary a great deal in different cases." Furthermore, while the book will undoubtedly be very helpful to librarians and others familiar with children's books and their contents, it would seem that its general usefulness would be greatly increased if an objective criticism of the books was given together with the preferences of the pupils and their reading grades.

Much inspiration has come out of Winnetka in recent years and very likely this library list will be an incentive to further study along similar lines in other quarters. Meanwhile no one who has to do with children's reading can well afford to overlook the interesting data offered in this book.

FRANCIS J. MACELWANE.

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**A Catholic Opinion on the Evolution Controversy, by Ulrich A. Hauber, Ph.D. Davenport, Iowa: St. Ambrose College.**

The recent decisions of certain state legislatures with regard to the teaching of evolution in the schools has brought about a new situation that is almost without parallel. A scientific theory, the study of which was formerly confined largely to scholars and trained specialists, or at least to fairly well educated people, is now thrown open to general discussion; and ignorant and learned alike feel free to offer an opinion on its merits and demerits. That they are often speaking with no real understanding of what is meant by the Theory of Evolution goes without saying; and the harm resulting from such a condition of affairs is apparent. The crux of the situation is, of course, the antagonism that is claimed to exist between the Theory of Evolution and the teaching of religion. Catholics are frequently drawn into these popular discussions and it behooves them to have a clear understanding of the attitude of the Church towards this question. Dr. Hauber's little pamphlet of thirty pages is designed to provide the laymen with the necessary information that will enable him to speak intelligently on the topic.

The author describes briefly the Theory of Evolution and adduces some of the evidence on which it is based. He then goes on to show that there is no contradiction between religion and the Theory of Evolution properly understood; that evolution may well be considered a method of creation; and that a knowledge of it should lead to a knowledge of God. Next he points out the limitations of evolution and the impossibility of extending it to include the higher nature of man. Lastly, he makes clear a fact that is not always grasped even by Catholics, viz., that the Bible is not intended as a text-book of science.

Catholic secondary schools and colleges need have no hesita-

tion in placing Dr. Hauber's pamphlet in the hands of their students. It deserves to be widely circulated.

EDWARD B. JORDAN.

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**Cardinal Newman.** A Biographical and Literary Study, by Bertram Newman. New York and London: The Century Co. Pp. 218. Price, \$2.00.

Newmanian literature grows apace, and with its growing comes a sense of satisfaction to every lover of truth and beauty. The present volume is written by a namesake who is not a relative of the great English Cardinal. It is a keen delineation of an intricate character, an impartial criticism of a many-sided man. Within the narrow compass of 218 pages the author attempts to gauge one of the most subtle intellects England has ever produced. We cannot say that he has not succeeded. Of course, the best way to study any great author is to read his works. Newman is no exception. Still there are many who have neither the time nor the inclination to pore over the many volumes with which the famous Oratorian has enriched our literature. To such the work by Bertram Newman will be of real service. It gives us a condensed biography, accurate and interesting. Its eleven chapters emphasize the salient points in Newman's career. While many of us, who reverently pronounce our "*Credo in Newmannum*," will not fully agree with some of the assertions of the author, we cannot help feeling that he was fitted for his task. A thoughtful analysis is given of Newman's principal works. We are grateful for the inclusion of the matter which was pronounced libellous in the famous Achilli trial and for the correspondence between Newman and Kingsley previous to the writing of the *Apologia*. In most editions of the *Apologia* this bit of clever dialectics has been purposely omitted.

Newman was at once an apologist, a philosopher, a historian and a litterateur. It is this last phase of the man that our author depicts. A careful perusal of the closing chapter should urge the reader to drink from the fountain. Students and instructors in English will be glad to welcome this book to their bookshelves. Its nominal price places it within the reach of all. The general reader cannot fail to appreciate this story so interestingly told

of him who bears the unique distinction of being both a prince of the Church and a prince of English prose.

J. F. LEIBELL.

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**Christian Monasticism**, by Ian C. Hannah, F.S.A., Professor of Church History, Oberlin College, Ohio. New York: The McMillan Co., 1925.

Under the general heading "Monasticism," Professor Hannah, "looking forward to the masterly work which is bound to come," supplies us with an appreciative treatment of the religious life in the Church from the desert monks of Egypt to the Jesuits and later Orders. He has read extensively on his subject and confesses himself "a great admirer of all that is best in the monasticism of the Christian Church." The field covered is very extensive; the work is a summary one; the author's hope is to stir up some scholar "to treat a vast historical field with the fullness of a Gibbon or a Hodgkin." The sources drawn upon are chiefly Catholic; for the greater part of the period treated the originals are only such. The few references to writers such as Coulton are more humorous than critical. The various phases of monastic history and achievement are dealt with admirably; sometimes the author seems to catch a gleam of what Catholics know lay at the core of it all—the inner spiritual life, around which all monastic work is gathered. "All this glory has been called by the Benedictines themselves 'by-products.' However great, however long drawn out, perhaps, after all, this work for the world was only a passing phase." (P. 84.) He is impressed by the earnestness of those who would return to "the simple ideals with which the order began its long career."

The issuance of a book such as this from the press of McMillan is indicative of the turn of mind which thoughtful persons are taking toward first principles, and of the keen interest in those elements of religion which established and kept union in the Christian Ages. Unity in prayer and good works may lead the way to harmony in doctrine and the social organization of the Church. Perhaps Newman was wrong in judging monasticism as lacking in the features necessary for a practical apostolate in modern times—or has the world changed since Newman's day? Recent interest in the virtues of the interior life, and in



the history of the Gospel counsels as effectively carried out in the past is the one encouraging sign of our times.

FRANCIS AUGUSTINE WALSH, O. S. B.

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### Books Received

#### Textbooks

Arnold, Margaret Gordon; Beem, Frances M.: *Folk Tales Retold*. Milwaukee, Wisc.: Bruce Publishing Co., 1926. Pp. 94. Price, 96 cents.

Avent, John M.: *Book of Modern Essays*. Boston: Allyn & Bacon, 1924. Pp. xiii+244. Price, \$1.20.

Badaire, J.: *Precis de Litterature Francaise*. Boston: D. C. Heath & Co., 1926. Pp. xvii+286. Price, \$1.60.

Chateaubriand, Francois-Rene De: *Atala and Rene*, Stewart, Caroline, Ph.D., editor. New York: Oxford University Press, American Branch, 1926. Pp. xiii+186. Price, \$1.00.

Clendening, Frances; Lower, Maude Clendening: *Mastering English, An Elementary Exercise for Foreigners*. New York: The Macmillan Company, 1926. Pp. xii+336.

Comfort, William Wistar, Ph.D.: *Practical French Composition*. Boston: D. C. Heath & Co., 1926. Pp. vii+151. Price, \$1.00.

Crumley, Thomas, C.S.C.: *Logic, Deductive and Inductive*. New York: The Macmillan Company, 1926. Pp. 442.

Desbeaux, Emile: *Les Trois Petits Mousquetaires*; Roth, Suzanne, M.A., editor. Boston: Allyn and Bacon, 1926. Pp. xi+208. Price, 80 cents.

De Curel, Francois: *Le Repas du Lion*; Fite, Alexander G., Ph.D., B.A., editor. New York: Oxford University Press, 1926. Pp. xxvi+185. Price, \$1.00.

France, Anatole: *Differents Souvenirs De Jeunesse*. Boyson, V. F., editor. New York: Oxford University Press, American Branch, 1925. Pp. 100. Price 50 cents.

Green, Sharpless Dobson: *Letters From Famous People*. New York: Gregg Publishing Company, 1925. Pp. xvii+362.

Greever, Garland; Bachelor, Joseph M.: *The Century Vocabulary Wordbook*. New York: The Century Company, 1926. Pp. xiii+210.

Gregg, John Robert: *Gregg Shorthand, Junior Manual*. New York: Gregg Publishing Company, 1925. Pp. xxii+168.

Hardy, Marjorie: *Wag and Puff, The Child's Own Way Series*. Chicago: Wheeler Publishing Company, 1926. Pp. 140. Price, 60 cents.

Hardy, Marjorie: *Surprise Stories, the Child's Own Way Series*. Chicago: Wheeler Publishing Company, 1926. Pp. 140. Price, 60 cents.

Hauff, Wilhelm: *Die Geschichten*. New York: Oxford University Press, American Branch, 1925. Pp. 92. Price, 70 cents.

Hill, Merton E.: *American Patriotism*. Boston: Allyn and Bacon, 1926. Pp. xi+241. Price, \$1.00.

Lamprey, L.: *Long Age in Egypt*. Boston: Little Brown and Company, 1926. Pp. 267.

McDade, James E.: *Individual Number Drills*; (Complete Specimen Set in envelope). Chicago: Plymouth Press. Price, 70 cents.

Meyer, Zoe: *Trail-Makers*. Boston: Little, Brown and Company, 1926. Pp. vii+217.

*Palgrave's Golden Treasury*; DeMille, A. B., editor. Boston: D. C. Heath & Company, 1926. Pp. xviix+629. Price, \$1.00.

Quintero, Serafin, and Quintero, Joaquin Alvarez: *La Flor de la Vida*; Reed, Frank O., and Brooks, John, editors. Boston: D. C. Heath and Company, 1926. Pp. xviii+106. Price, 76 cents.

Rosenthal, Daniel C., M.A.; Mankiewicz, Frank, Ph.D.: *Thèmes Français*. Boston: D. C. Heath and Company, 1926. Pp. vii+168. Price, \$1.16.

Rushmer, C. E.; Dence, C. J.: *High School Algebra* (Second Course). New York: American Book Company, 1926. Pp. 352.

Spriggs, Leslie V.: *American History Note Books*, Numbers One and Two. Chicago: Hall & McCreary Co., 1926. Pp. 96, 60 cents; pp. 128, 64 cents.

Verne, Jules: *Le Tour du Monde en Quatre-Vingts Jours*; Alexander Gocen, Ph.D. Boston: D. C. Heath & Co., 1926. Pp. xviii+301. Price, \$1.00.

Walsh, Gertrude M.: *Por Espana*. Boston: Allyn & Bacon, 1926. Pp. xii+202. Price, \$1.20.

Wellman, Mabel Thacher, Ph.D.: *Food Study for High Schools*. Boston: Little, Brown and Co., 1926. Pp. xix+528.

Whigam, Wallace Hugh, M.S.: *The Essentials of Commercial Law* (revised edition). New York: The Gregg Publishing Co. 1925. Pp. xiii+365.

Woods, George B.; Stratton, Clarence: *A Manual of English*. Garden City: Doubleday Page & Company, 1926. Pp. xxv+282. Price, \$1.00.

Worcester, Joseph E., LL.D.: *A New School Dictionary of the English Language* (Revised Edition).

### Reports

Clark University, Worcester, Mass.: *Administrative Report of the President*. April Bulletin, 1926.

General Education Board: *Annual Report, 1924-25*. New York City, 61 Broadway.

United States Department of the Interior: *56th Annual Report of the Board of Indian Commissioners, for year ending June 30, 1925*.

National Committee for Mental Hygiene: *Report of a Mental Survey of Staten Island, New York, New York City, 370 Seventh Avenue*.

National Committee for Mental Hygiene: *Report of a Mental Survey of Kentucky*. New York City, 370 Seventh Avenue.

University of the State of New York: *21st Annual Report of the Education Department for the school year ending July 31, 1924*. Albany: University of the State of New York, 1925. Pp. 717.

### General

Brownson, Sarah; Heinroth, Theodore: *The House of Wisdom. A Cantata in Honor of St. Madeleine Sophie Barat*. New York: J. Fischer & Bro.

*Catherine of Siena; the Seraphic Virgin, the Dialogue of*. New York: Benziger Brothers, 1925. Pp. xxv+353. Price, \$4.25.

Clarke, Isabel C.: *Selma*. New York: Benziger Brothers, 1926. Pp. 370. Price, \$2.00.

Counts, George S.: *The Senior High School Curriculum*. (Supplementary Educational Monographs published in conjunction with the School Review and the Elementary School Journal.) Chicago, Ill.: The University of Chicago Press, 1926. Pp. 160. Price, \$1.00.

*Miscellaneous*

DeWulf, Maurice: *History of Philosophy*, Vol. 1. New York: Longmans Green, 1925. Pp. xvi+416. Price, \$5.00.

Hurst, George L.: *An Outline of the History of Christian Literature*. New York: Macmillan, 1926. Pp. ix+545.

O'Hagan, Thomas, Ph.D., Litt.D., LL.D.: *The Genesis of Christian Art*. New York: The Macmillan Company, 1926. Pp. 170.

Shaughnessy, Gerald, S.M., A.B., S.T.D.: *Has the Immigrant Kept the Faith?* New York: Macmillan, 1925. Pp. 289. Price, \$2.50.

Pyne, Rev. John X., S.J.: *The Mind*. Benziger Brothers, 1926. Pp. xxvi+382. Price, \$2.00.

*Pamphlets*

Bureau of Education Bulletin, 1925, No. 19; Greenleaf, Walter J.: *Statistics of Land-grant College for year ended June 30, 1923*.

Bureau of Education Bulletin, 1925, No. 37; Proffit, Maris M.: *Industrial Education*.

Bureau of Education Bulletin, 1925, No. 35. Hood, William R.: *Review of Educational Legislation, 1923-24*.

Department of the Interior: *A Federal University for the People*.

Liddy, Very Rev. Monsignor William L.: *Rosary of Novenas to Our Lady*. New York: Benziger Brothers, 1926. Pp. 47. Price, 15 cents.

McDonough, Rev. M. V.: *A Short Life of Christ*. New York: Benziger Brothers, 1926. Pp. 63. Price, 10 cents.

McSorley, Rev. Joseph: *A Little More Joy*. New York: Paulist Press.

McSorley, Rev. Joseph: *Meditations on the Fourteen Stations*. New York: Paulist Press.

Matteson, Brooks, A.B.: *The Matteson Booklets, Ivanhoe, As You Like It, Homer's Odyssey, The Last of the Mohicans*. East Hampton, New York: Matteson Publishing Co., 1925. Price, 15 cents each. Ivanhoe, 20 cents.